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COSTA**

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BLASI**

44 YEARS OF VISION

A New Era for Oncology Education



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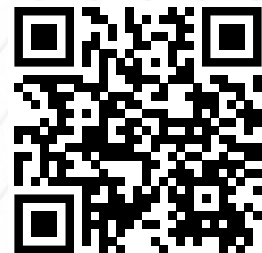
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NOT FOR SALE

Science is moving at extraordinary speed. We can identify mutations once invisible, develop drugs that destroy proteins previously considered untouchable, and transform diagnoses that once offered little hope.

Yet a patient can still wait too long for treatment. A brilliant young researcher can remain invisible. A dedicated oncologist can lose the strength to continue caring.

Progress is not only about what becomes possible. It is about who gets the chance to benefit.

This issue of CancerWorld explores that distinction.

Our two cover stories celebrate the power of building something greater than oneself. **Rüdiger Hehlmann's** pioneering work and the European LeukemiaNet demonstrate what scientific collaboration can achieve. At the European School of Oncology, the transition from **Alberto Costa to Rossella Blasi** after 44 years reminds us that a leader's greatest legacy is not simply what they accomplish, but what they make possible for others.

That same spirit lives in young oncologists creating networks, researchers advancing science amid war, and professionals sharing knowledge across borders. It also challenges institutions that still allow inequality, bureaucracy and fragmented systems to stand between innovation and patients.

But perhaps the most important lessons in this issue come from moments medicine cannot measure.

A patient in Algeria wants to feel well enough for his son's wedding. Young cancer survivors gather on a football field in Milan, where friendship matters more than the final score. And behind every consultation is a clinician carrying fears and vulnerabilities of their own.

These stories remind us that **treating cancer and caring for a human being are inseparable responsibilities.**

We need breakthroughs. We need courageous science, strong institutions and ambitious leaders.

But we also need to remember why.

Because the ultimate measure of oncology is not how far science advances.

It is how much of life that progress gives back.

Knarik Arakelyan, Managing Editor, CancerWorld

44 Years of Vision

Alberto Costa and Rossella Blasi



A **New Era** for Oncology Education

By Knarik Arakelyan

After more than four decades under the leadership of Alberto Costa, the European School of Oncology enters a new chapter with Rossella Blasi as CEO. The transition brings together the legacy of Umberto Veronesi's founding vision and the challenge of preparing future generations of cancer professionals.

For more than four decades, Alberto Costa helped shape an institution built on a conviction: advances in cancer medicine matter only when knowledge reaches the professionals who care for patients. What began in Milan in 1982 as Umberto Veronesi's vision grew into an international educational community connecting generations of oncology professionals.

Now, that institution is entering its major leadership transition.

On 8 October 2026, ESO announced the appointment of Rossella Blasi as CEO, succeeding Costa, who now serves as the Vice President and continues contributing his clinical, scientific and institutional experience.

Fedele Gubitosi remains President of ESO.

Blasi assumes leadership at a time when oncology is evolving rapidly, and when ensuring access to high-quality cancer education remains an essential challenge for healthcare systems across Europe and beyond.

The transition is more than a change in executive leadership. It is an opportunity to reflect on what has been built over four decades, what must be preserved and what the next generation of oncology professionals will need.

The Vision that Built a European Community

The story of ESO began in Milan in 1982, when Professor Umberto Veronesi and Princess Laudomia Del Drago established an institution dedicated to education and continuing professional development in cancer care.

Veronesi believed that progress against cancer depended not only on scientific discoveries but also on the ability to share knowledge, connect specialists and bring advances in research into everyday clinical practice.

His ambition was to create an educational center with a

genuinely European outlook, bringing together expertise from different countries and encouraging collaboration beyond national boundaries.

Alberto Costa, then Veronesi's assistant at the National Cancer Institute in Milan, was entrusted with leading the School.

Over the following decades, ESO developed into an international educational network, supporting oncology professionals through successive transformations in cancer medicine.



Professor Umberto Veronesi and Princess Laudomia Del Drago, whose shared vision and commitment led to the founding of the European School of Oncology in Milan in 1982

From advances in surgery, radiotherapy and systemic treatment to the emergence of precision oncology, immunotherapy and increasingly complex multidisciplinary care, the knowledge required to deliver high-quality cancer treatment has changed profoundly. So too have the educational needs of the professionals responsible for providing it.

ESO has responded by developing courses, masterclasses, university programmes and advanced training placements at leading European cancer centers, supporting doctors, nurses and other healthcare professionals at different stages of their careers.

ESO's seven-step educational pathway supports oncology professionals throughout their careers, from their first exposure to oncology as medical students through specialist training, advanced clinical education and postgraduate programmes, to leadership

development.

In 2025 alone, ESO brought together more than 2,700 participants and over 600 faculty members from 53 countries, with women accounting for 43%.

Yet ESO's significance cannot be measured by participation figures alone. Its contribution lies in the professional relationships, international exchange and opportunities for learning that have developed through its programmes.

For generations of oncology professionals, education has also meant becoming part of a wider community.

A Leadership Transition Across Generations

Few individuals have been as closely associated with ESO's development as Alberto Costa.

From the institution's earliest years, he has helped shape its educational direction, international collaborations and commitment to making oncology knowledge accessible beyond individual institutions and national borders.

His partnership with Umberto Veronesi was central to that journey. In a 2025 interview with CancerWorld, conducted by Dr Gevorg Tamamyan, Costa reflected on the close professional relationship that helped shape both his career and the institution they built together. He recalled that colleagues would sometimes confuse their names, referring to them as Alberto Veronesi and Umberto Costa, a reflection of how closely they worked together.

Their collaboration combined Veronesi's scientific vision with Costa's ability to build institutions and international connections. But Costa's understanding of ESO's mission extended beyond establishing educational programmes. It was also about taking knowledge to places where access to international oncology education could not be taken for granted.

He recalled how ESO deliberately brought courses to Sarajevo after the war and Belfast following the peace process, rather than concentrating its educational activities in established European centers such as Amsterdam or Brussels.

The same belief in making knowledge accessible helped shape CancerWorld itself. Costa recalled how the idea for the magazine emerged from conversations with his wife, Kathy, in Dublin, about bringing scientific advances to a wider professional audience. The initiative eventually evolved from an earlier publication, Cancer Futures, into CancerWorld under ESO's umbrella.

Although CancerWorld is now part of the OncoDaily family, rather than ESO, its origins remain closely connected to Costa's conviction that important developments in cancer medicine should be communicated beyond the pages of scientific journals. The magazine's subsequent evolution reflects the continuing importance of that mission, even as the institutions responsible for carrying it forward have changed.

For Costa, the central concern was never simply passing on research findings. It was the people behind the science, the professionals trying to understand it and the patients whose care could be improved through that understanding.

His leadership has spanned more than four decades of extraordinary scientific progress, during which the possibilities of cancer treatment have expanded and the demands placed on oncology professionals have grown increasingly complex.

Yet, for Costa, one of the most meaningful measures of professional achievement has been the success of those he has taught and mentored. In the same interview, he described the satisfaction of seeing former colleagues grow into leadership positions, recalling how his deputies succeeded him in the departments he had led in Milan, Pavia and Lugano.

Even after stepping away from clinical practice, those former colleagues continued to turn to him for advice. He also recalled patients thanking him for having trained the doctors who would continue their care. For Costa, this was perhaps the clearest expression of a professional legacy: preparing others to carry the work forward.

The decision to appoint Rossella Blasi as CEO therefore carries particular historical significance.

It marks the transition from the generation that established and developed ESO to the leadership that

will guide its next phase.



Dr Alberto Costa, who led the European School of Oncology for 44 years, from its foundation in 1982 until his transition to Vice President in 2026

For Costa, the change does not mean stepping away from the institution he helped build. As Vice President, he will continue supporting ESO's scientific mission and contributing his experience to the development of future generations of oncology professionals.

His reflections on mentorship give this transition a deeper significance. Leadership, in Costa's understanding, has never been solely about holding a position. It has also been about preparing others to take responsibility, creating opportunities for younger professionals and ensuring that the work continues beyond the individuals who began it.

For an institution built around the transmission of knowledge between generations, the handover of leadership carries a particular resonance. Costa spent much of his career preparing others to

advance cancer care. Now, the institution he helped build must demonstrate that same capacity for renewal.

Reflecting on ESO's 44-year journey in an exclusive conversation with CancerWorld, Dr Alberto Costa identifies accessibility as one of the institution's most important achievements.

"I believe ESO's most important contribution has been to make high-quality oncology education accessible across Europe, creating opportunities for generations of professionals to learn, exchange knowledge and grow together."

For Dr Costa, the principles established by Umberto Veronesi remain essential to the School's future.

"What must be preserved from Umberto Veronesi's original vision is the belief that education can improve cancer care and that knowledge should cross borders."

He believes ESO must continue to evolve while remaining independent, open and committed to the professionals caring for patients with cancer.

The handover itself carries a personal significance.

"After so many years, handing over the leadership of ESO is naturally an important and emotional transition. But it is also a sign of continuity and renewal."

His confidence in Blasi reflects both their shared experience at ESO and his belief in the importance of allowing a new generation to lead.

"Rossella knows ESO deeply, its people, its values and its potential. I am confident that she will bring her own vision and leadership while preserving the principles on which the School was built. My new role as Vice President will allow me to continue supporting ESO while giving the next generation the space to lead its future."

The Next Generation of Oncology Education

For Rossella Blasi, the appointment represents both a new responsibility and a continuation of her work within the institution.

Having previously served as ESO's Executive Director since January 2023, she now assumes leadership of an organization supported by an international community of faculty members, partners, clinicians and young oncology professionals.

Blasi brings a professional background in research administration and institutional development. She began her career in oncology administration at the European Institute of Oncology before helping establish IFOM, the FIRC Institute of Molecular Oncology. There, she progressed to Chief Operating Officer in 2016, with responsibilities spanning organisational development, digital transformation, laboratory expansion and gender equality initiatives. Her work also earned her the 2018 TopLegal Award for HR Director of the Year.

This experience gives her appointment a significance beyond continuity. While Costa's leadership was closely associated with the creation and international development of ESO, Blasi brings experience in managing scientific organisations, developing their infrastructure and navigating institutional change.

Her challenge will be to apply that experience to an educational institution whose future depends on responding to changing professional needs without losing the independence and international outlook that have defined its work.

Blasi's appointment comes at a time when the challenges facing cancer education are changing.

Scientific advances are transforming diagnosis, treatment and clinical decision-making at an unprecedented pace. New therapeutic approaches, increasingly sophisticated technologies and the growing importance of multidisciplinary care require continuous learning throughout professional careers.

At the same time, opportunities for education and specialist training remain uneven, while healthcare systems face workforce shortages, resource constraints and growing demands on cancer services.

For educational institutions such as ESO, the challenge is not simply to provide more knowledge. It is to ensure that knowledge remains accessible,

relevant and capable of improving clinical practice.



Rossella Blasi, appointed Chief Executive Officer of the European School of Oncology in October 2026, succeeding Alberto Costa after 44 years of leadership

Blasi has emphasised strengthening an independent and accessible educational offering that connects scientific knowledge, clinical practice and patients' needs.

This ambition builds directly on the School's founding mission while responding to the changing realities of modern oncology.

Speaking to CancerWorld about her vision for ESO's next decade, Blasi places institutional strength, accessibility and measurable educational impact at the centre of her ambitions.

"My vision is for ESO to become stronger, more effective and capable of creating a lasting impact on cancer care. This means building on what we have achieved while ensuring that our educational programmes remain relevant, accessible and financially sustainable."

Strengthening international collaboration and expanding opportunities for young oncology professionals, particularly those working in resource-limited settings,

will be central to that vision. But Blasi also wants ESO to look beyond conventional measures of educational activity.

"I also believe we need to look beyond the number of courses we organise or participants we train. Our ambition should be to understand how education translates into better professional skills, new collaborations and improvements in everyday clinical practice."

Her ambition is not simply institutional expansion, but a stronger connection between education and its impact on cancer care.

In the immediate term, Blasi intends to focus on strengthening ESO's team, drawing on its internal expertise and establishing clear strategic priorities. Reviewing the educational portfolio, maintaining financial sustainability and developing international partnerships will also form part of her first-year agenda.

"To measure success, I would look at both organisational progress and educational impact: team engagement, progress against our strategic priorities, the sustainability of our programmes and our ability to reach professionals with limited access to training."

She also emphasises the importance of following up with participants to understand how education influences their clinical practice and professional collaborations.

"For me, success at the end of the first year would mean having a motivated team, a clear direction and concrete evidence that our work is making a difference."

A Mission that Remains Unfinished

The leadership transition at ESO comes at a defining moment for oncology education.

Cancer research continues to generate discoveries that would have been difficult to imagine when the School was founded in 1982. Yet scientific progress alone does not guarantee that patients will benefit equally from those advances.

Knowledge must reach the professionals responsible for delivering care. Training must evolve alongside clinical practice. And educational opportunities must

extend beyond the institutions and countries where new approaches are first developed.

This is why the principles that inspired ESO's creation remain relevant.

For young oncologists, access to international education and mentorship can influence the direction of an entire career. For experienced professionals, continuing education is essential to navigating the increasing complexity of cancer medicine. For healthcare systems, investing in professional development is an investment in the quality and sustainability of cancer care.

The appointment of Rossella Blasi, alongside Alberto Costa's continuing contribution as Vice President, offers an opportunity to carry that mission forward.

Ultimately, this transition will be judged not only by the continuity it preserves, but by the opportunities it creates: whether more professionals gain access to high-quality education, whether previously underserved healthcare systems become better connected to international expertise, and whether ESO continues to evolve alongside cancer medicine.

In 1982, the ambition was to bring Europe's oncology community closer together and ensure that scientific progress could become better care for patients.

Forty-four years later, the people leading that mission are changing. The questions facing them are different, the science is more complex and the possibilities are greater. But the measure of success remains remarkably similar: not simply how much knowledge is created, but how widely it is shared and how many patients ultimately benefit.

The next chapter of ESO will be written by a new generation. Its purpose remains as relevant as ever.

About the Author

Knarik Arakelyan, PhD, is a psychologist and communications professional with over 14 years of experience in public relations, health communication, and public awareness campaigns. She is currently the Managing Editor of "CancerWorld" magazine, Chief of Staff of OncoDaily, and serves as PR and Communications Officer at "EMERTÉ" Clinic.

When Success is Not Enough

Why **Women** Still Face Barriers at the Top of Medical Research

A study on highly cited women scientists who have succeeded by conventional measures of academic achievement suggests that reaching the top does not mean that barriers have disappeared.

By Adriana Albini



Prof Adriana Albini

For years, CancerWorld has documented the barriers that hold women back in leadership roles in oncology and medical research.

We have asked why surgery remains dominated by men despite the growing number of talented female surgeons. We have looked at the persistent inequalities affecting women pursuing academic careers in oncology. We have argued for change, and we have given women oncologists the opportunity to describe, in their own words, what it means to build a career in a profession where gender can still influence opportunities, recognition and advancement.

The evidence that a gender gap exists is therefore hardly new.

But there is another way of looking at the problem.

What happens if, instead of asking why women leave science or fail to reach its highest ranks, we ask the women who made it to the top?

That was the question behind our recent study, Challenges and barriers to women's leadership in medical research and how to prevent and overcome them, published online in the European Journal of Cancer Prevention on 21 July 2026.

The study, by Adriana Albini, Elisabetta Vercesi, Eva Negri, Delia Goletti, Sara Gandini, Giovanni Corso and Sonia Levi, investigated the experiences of highly accomplished women scientists working in Italian academic and medical research.

Their answers were revealing – and, in many respects, disturbing.

Almost nine in ten reported encountering at least one gender-related obstacle during their careers.

These are not women whose careers stalled. They are not women who failed to find a place in science.

They made it. But they made it despite the barriers.

That distinction matters.

Looking at the women who made it.

The study grew out of the Top Italian Women Scientists (TIWS) Club of Fondazione Onda ETS, the Italian National Observatory on Women's and Gender Health.

TIWS was created in 2016 to bring together Italian women

scientists distinguished by high scientific productivity and impact in biomedical sciences, clinical sciences and neuroscience. Its aim was not only to recognise scientific excellence, but also to build a network, to make accomplished women scientists more visible and to encourage younger women to consider careers in research.

That visibility is needed. Women represented only 18.8% of the researchers included among the Top Italian Scientists of viaAcademy in the analysis presented when the Club was developed, ranging from 25% in biomedical sciences to just 15.6% in clinical sciences.

From the outset, TIWS was about more than celebrating successful women. It also created a space in which they could talk about how those careers had been built.

The research followed a methodological survey conducted by Elma Research and promoted by Fondazione Onda ETS. A structured 33-item questionnaire explored work-life balance, caregiving and maternity, gender-related obstacles, access to leadership roles and perceptions of institutional support. One hundred senior women medical researchers with an h-index of at least 60 were invited to participate; 82 completed the questionnaire.

They had spent, on average, more than three decades in research. Most had substantial international experience. TIWS is part of a much broader movement. Women scientists have been organising for decades to gain visibility, recognition and access to leadership. In cancer research, one of the most important examples is Women in Cancer Research (WICR) within the American Association for Cancer Research (AACR).

WICR provides a structure for advocacy, networking, mentoring, awards and professional development, while advising AACR leadership on issues of concern to women investigators.

In Europe, the European Women's Management Development network (EWMD) set out to increase women's visibility and participation in senior positions in business and society and to provide new female role models for younger generations.

These organisations emerged in different environments but share an important premise: talent is not enough if the structures that recognise, promote and select talent do not give women the same possibility to progress.

Almost four decades after WICR and EWMD were established, that proposition remains strikingly relevant.

Success – Despite the Barriers

Among the women in our study, 89% reported encountering at least one gender-related obstacle during their careers.

57% reported difficulties in accessing leadership positions and 52% difficulties in career progression. Only 17% were satisfied with the level of gender equality and inclusiveness in medical research.

These figures deserve attention precisely because of who answered the questionnaire.

We sometimes point to successful women as evidence that barriers have disappeared. There are now female professors, department heads, scientific directors, society presidents and internationally recognized researchers. Surely, the argument goes, the glass ceiling must be breaking.

But exceptional individual success cannot be used as evidence that everyone has an equal chance of achieving it.

The women we surveyed published, competed for grants, built research groups, trained younger scientists, accumulated citations and achieved international recognition.

Success tells us that they overcame the obstacles. It does not tell us that the obstacles were not there.

Indeed, studying only the women who reach the top may underestimate the scale of the problem, because it tells us nothing about those who disappeared along the way.

The Scissors are Still Cutting

The pattern has been recognised for years.

Women are strongly represented among students and early-career researchers, yet their proportion progressively decreases as academic rank rises. The resulting graph has become known as the “scissor-shaped curve”: as men’s representation rises towards the highest academic grades, women’s falls.

The persistence of this “scissor-shaped curve” is not simply a legacy of the past. As Johanna Joyce and colleagues argued in Cell in 2024, waiting for gender imbalances to correct themselves over time has not

worked: closing the scissors requires proactive, data-driven and sustained institutional action.

Why do the scissors remain open? Our survey suggests there is no single answer. Disadvantages can accumulate through a series of pressures: gender bias, difficulties in career progression, unequal access to leadership and decision-making, family and caregiving responsibilities, lack of institutional support, and a scientific culture that often equates commitment with near-constant availability.

Some of these barriers are overt. Others are subtle.

Women can also encounter the familiar leadership double bind: behaviours associated with successful leadership, such as assertiveness and authority, may be evaluated differently when displayed by women. A woman is expected to be decisive enough to lead but risks being judged negatively if she is perceived as too assertive; collaborative enough to conform to gender expectations, but not so accommodating that she appears insufficiently authoritative.

No single episode necessarily determines a career.

But small differences in access to recognition, networks, funding, invitations, promotion and leadership can accumulate over 20 or 30 years.

The Hidden Cost of the ‘Ideal’ Scientific Career

Then there is time.

Scientific careers remain structured around a model of exceptional availability: long working hours, international mobility, conferences, evening meetings, grant deadlines, laboratory emergencies and the expectation that the most committed researchers will somehow always find additional time.

But time is not equally available to everyone. In our survey, 91% reported difficulties balancing professional and personal responsibilities.

Most had also carried substantial caregiving responsibilities. Seventy-four percent had children and 72% had cared for other family members. Among mothers, nine in ten reported moderate or severe difficulties combining childcare with their professional commitments.

The survey also showed how deeply work could



penetrate private life. Respondents described difficulty disconnecting from work, lack of time for themselves, working beyond normal hours and feelings of guilt associated with the time and energy devoted to their careers.

These are not marginal lifestyle issues.

They raise a more fundamental question about what we mean by scientific excellence.

If success in research requires almost unlimited availability, people who carry a disproportionate share of childcare or care for aging or dependent relatives begin the race from a different position.

And caregiving does not disappear when children grow up. For senior scientists, responsibility for elderly family members can become another major component of the same work-life equation.

Burnout Should Not Be a Badge of Honour

One of the most concerning findings was the prevalence of burnout.

Almost three quarters of the women reported having experienced one or more episodes of burnout. More than one third had considered leaving academic

medical research because of the difficulties they encountered; the published study reports this figure as 37%.

For women who have achieved such distinguished careers, these are remarkable figures.

Science has traditionally celebrated endurance. Long hours, personal sacrifice and the ability to continue despite uncertainty are sometimes worn almost as badges of honour.

Resilience is certainly essential in research. Experiments fail, papers are rejected, grants are not funded, hypotheses prove wrong and careers inevitably contain setbacks. But there is an important distinction.

Resilience should help scientists cope with the difficulty of doing science – not compensate for avoidable inequality in the system in which science is done.

Stop Fixing the Women

Many initiatives designed to improve gender equality have focused on women themselves.

Women are encouraged to find mentors, network more, develop leadership skills, negotiate better, become more confident, speak up, manage their time more efficiently

and learn how to reconcile family and career.

Many of these interventions are valuable.

The long experience of networks such as TIWS, AACR-WICR and EWMD demonstrates the importance of visibility, mentoring, role models, networking and peer support. WICR, for example, has made career development and recognition of women's scientific achievements central to its mission; EWMD has long combined networking with professional development and greater visibility for women in leadership.

For a young woman entering an environment where most senior leaders are still men, seeing women who have succeeded can be transformative.

But networks cannot substitute for institutional change.

There is a danger in framing gender inequality primarily as a problem women themselves need to solve. It can subtly imply that women need to become more confident, more strategic or more resilient in order to succeed within structures whose rules remain unchanged.

The women we surveyed hardly lack resilience. They have demonstrated extraordinary persistence and scientific productivity over decades.

The ultimate measure of success for initiatives supporting women should therefore not only be how effectively they help women navigate existing structures.

It should also be whether those structures themselves change.

From Mentorship to Sponsorship and Decision-Making

Mentoring remains important, particularly early in a career. But at senior levels another concept becomes increasingly relevant: sponsorship.

A mentor advises a scientist.

A sponsor says her name when she is not in the room.

Who should lead the new programme? Who should receive the award? Who should chair the committee? Who should be invited to give the keynote lecture? Who is ready to become department head?

Those apparently small moments can change careers.

This connects directly with one of the clearest messages from the TIWS survey: women need to be present not only in institutions, but where decisions are made.

Seventy-four percent of respondents considered increasing women's representation in decision-making positions extremely important. Better support for work-life balance, greater recognition and visibility of women's contributions, and concrete support for career progression and promotion were also among the measures most strongly endorsed.

Counting women in an institution is therefore not enough. We need to ask who sits on recruitment and promotion committees, grant panels and editorial boards; who leads research programmes and clinical trials; who receives institutional nominations for prizes; who is invited to speak; and who participates in deciding the next generation of leaders.

Because today's decision-makers select tomorrow's decision-makers.

Equal Work Should Also Mean Equal Reward

Recognition is not only symbolic.

Gender equity must also include equal remuneration for comparable roles and responsibilities.

Salary gaps can reflect multiple factors and vary across institutions and countries, but institutions have the ability to examine their own data. Salaries, promotions, leadership appointments, funding, awards and other markers of professional recognition can all be monitored by gender.

Transparency matters.
It is difficult to correct inequalities that remain invisible.

Why should the cancer community care?

Gender equity is a matter of fairness, but for the cancer community it is more than that.

Cancer research invests in people for decades. Scientists acquire highly specialised knowledge, clinical expertise, international networks, leadership skills and the ability to mentor the next generation.

When talented women leave research, progress more slowly than their peers, experience burnout or remain excluded from positions where scientific priorities are determined, research loses part of that investment.

Leadership also influences which questions are asked, which programmes receive support and which problems attract attention.

A research system that makes it unnecessarily difficult for a large proportion of its talent pool to contribute at the highest level is clearly not making optimal use of that talent.

From Documenting the Gap to Closing It

Our study has some limitations, but they also point to important directions for future research.

It is cross-sectional and based on self-reported experiences. The participants constitute a highly selected population of successful Italian women scientists, and the h-index criterion favours researchers with long-established careers. There was no comparator group of male scientists or younger women researchers.

Future studies should therefore extend this work to younger generations of researchers and include appropriate comparison groups, allowing us to explore how these experiences may be changing over time.

The findings should therefore not be interpreted as representative of all women in medical research, nor can they establish that gender caused every difficulty reported by respondents. The published paper explicitly describes the results as descriptive evidence from a selected cohort.

But the selectivity of the sample is also precisely what makes it interesting.

For decades, organisations including AACR-WICR and EWMD have worked to make women visible, support their careers and increase their participation in leadership.

CancerWorld has repeatedly documented the gender gap in oncology – from women in surgery to inequalities in academic oncology, leadership and career progression.

This study looks at the problem from the opposite end of the career trajectory.

We asked the women who stayed.

We asked women who published, competed, travelled, built teams and accumulated the citations that mark scientific recognition. Women who navigated the system for three decades or more and reached levels where nobody could plausibly argue that they simply needed to work harder.

And they told us that the barriers were still there. Perhaps that should change the question we ask.

The challenge is no longer simply: how do we encourage more women to enter science?

It is how we create a scientific culture in which women can enter, stay, progress and lead without having to overcome barriers that have little to do with the quality of their science.

Celebrating successful women remains important. Visibility matters. Networks matter. Mentors and sponsors matter. But visibility is not the endpoint.

The next generation of women scientists should not have to be exceptional simply to overcome the system.

A system in which exceptional women can succeed despite the barriers is not the same as a system in which women have equal opportunities to succeed.

The study

Albini A, Vercesi E, Negri E, Goletti D, Gandini S, Corso G, Levi S. Challenges and barriers to women's leadership in medical research and how to prevent and overcome them. *European Journal of Cancer Prevention*. Published online 21 July 2026. doi: 10.1097/CEJ.0000000000001031.

Relevant reference

Joyce JA, Masina S, Michalik L, Pot C, Sempoux C, Amati F. Closing the scissor-shaped curve: Strategies to promote gender equality in academia. *Cell*. 2024;187(6):1335–1342. doi:10.1016/j.cell.2024.01.050.

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Building a Clinical Trial in a Country at War

What **Lviv** Taught Us

By Thiago Favano

What does it take to bring a complex cell-therapy trial to an intensive care unit in a country at war? Thiago Favano travelled to Lviv expecting to assess whether it could be done. He came away with a different understanding of clinical research, resilience and what remains possible under extraordinary circumstances.



There are moments every critical care clinician recognizes, wherever they work. A patient survives the injury that brought them in, and then the lungs begin to fail. The chest film whites out, the oxygen requirement climbs, and the organism on the culture report is one that the strongest available antibiotics will not touch.

I have spent most of my career powering that moment into statistical assumptions. I had not stood next to it in a country at war until last year.

The wards at First Lviv are full of young men and women who have lost arms and legs, and of patients with burns and severe wounds. In the intensive care unit, most patients are unconscious. What I did not expect was the dedication and determination of the caregivers, from seasoned clinicians to young doctors and nurses in training: precise and wholly serious at the bedside, and, in the corridor afterwards, among the warmest and least guarded people I have met.

In their case discussions, both were present at once. The rigour never slipped, and neither did the sense that the person under discussion belonged to them.

When Infection Becomes the **Greater Threat**

Severe pneumonia is the most common cause of acute respiratory distress syndrome, or ARDS, worldwide. In conflict zones, it is often caused by highly drug-resistant organisms with few available treatments, particularly in austere conditions. Among patients who progress to severe ARDS, despite everything intensive care can offer, close to half do not survive.¹ No approved therapy has been shown to improve mortality, and many survivors face long recoveries and lasting disability.

The therapy MiNK Therapeutics has been developing takes a different route: rather than blocking one cytokine or one immune pathway, agenT-797 is designed to restore and rebalance the immune cell population. Invariant natural killer T cells sit at the junction of innate and adaptive immunity, and under severe stress they are rapidly depleted. What is lost is not only the capacity to clear the infection; it is the signal that tells inflammation when to stop.

agenT-797 is an off-the-shelf, donor-derived iNKT cell therapy: no HLA matching, no lymphodepletion, no patient-specific manufacturing. It is thawed at the bedside and given as a single infusion, much like a unit of plasma, and MiNK has shipped it to sites worldwide.

In our first-in-human study during the COVID-19 pandemic, published in *Nature Communications*, 28-day survival among the treated patients was 70 percent.² Under expanded access, we have since observed clinical responses in individual patients outside viral disease, including a case of disseminated fungal infection treated in combination with an IL-15 super-agonist.³

Those early, uncontrolled observations suggested the approach might have potential against multidrug-resistant organisms. They also argued for opening the next study to patients with hypoxemic pneumonia of any cause who meet ARDS criteria.

In conflict zones, patients reaching an ICU arrive not with a single injury but with infection layered on top of it; although trauma may bring them into the hospital, infections such as pneumonia are often what kill them. That meant going where those patients are, and Ukraine is among the regions most affected by multidrug-resistant infection.

That work is now a randomized, double-blind, placebo-controlled Phase 2 trial (NCT07615010), cleared to proceed by the US Food and Drug Administration. It is active in Ukraine, where the first site opened and patients are enrolling; site expansion in the United States is underway.



The team

Going Where the **Patients are**

There are no direct flights into Ukraine. You fly to Rzeszów, get into a van, and drive.

At the border, handing over a passport and our letters from the hospital, I spoke with Ukrainians on their own soil for the first time, in the handful of words I had learned in two weeks of lessons in Boston. What I felt was recognition, and respect for what they are living through. Lviv itself was vibrant, animated, unlike anything I

expected in a war zone. The city is alive: people on the streets, cafés full, children, music. In many moments, we forgot we were in a country under constant threat of attack.

First Lviv Territorial Medical Union is among Ukraine's largest medical institutions and the referral centre for the west of the country. UNBROKEN was built inside it after the invasion, under the Ministry of Health; together, the two have treated more than 30,000 war-affected Ukrainians.

We came to assess whether the study could be run there. We left having learned impactful lessons ourselves.

On rounds, the standard of critical care was not a compromise version of what I know from the United States; in places, it was ahead of US ICUs. Their microbiology service identifies 1,066 organisms, resistant strains included, faster than I expected.

But the capability is not what I remember.

What I remember is how each case was discussed: the insistence on the best available option for that particular person, the refusal to treat anyone as a lost cause.

The principal investigator is Dr Khrystyna Orlynska, head of anesthesiology and intensive care, and the anesthesiologist on the team that performed Ukraine's first deceased-donor lung transplant. She is as humble as she is formidable; what she has built is not only a service but a generation of young intensivists trained to a standard I would recognize anywhere.



Dr Khrystyna Orlynska

"Many of our patients reach us after long evacuations, and by the time pneumonia develops, the organisms are often resistant to almost everything we can give. We do not yet know whether this therapy helps — that is exactly why it had to be a randomized, blinded trial. Our patients deserve a real answer, and our team is ready to produce one. For our

young intensivists, this trial is a school in itself: every step done to an international standard, with no shortcuts."

— Dr Khrystyna Orlynska, Head of Anesthesiology and Intensive Care, First Lviv Territorial Medical Union

Her sub-investigator, Dr Demian Kalysh, is a young attending physician who works around the clock. They, their colleagues and the people I met in the streets of Lviv shared the same dichotomy: inside the hospital, complete seriousness about the country and the patients; outside it, a capacity for happiness and even joy, in the company of each other and of their foreign visitors, eating, drinking and laughing together despite the persistent stress of war.

UNBROKEN does not stop at surgery and prosthetics. There is a whole building for rehabilitation, art programmes and a route back to work, and some of those who arrived as wounded soldiers now work in the institution that treated them.

Walking through it, I heard a guitar somewhere down the corridor – a patient playing, someone sitting with him, the two of them entirely absorbed. In the gallery, I stood for a long time in front of a painting made by one of them and thought, without exaggeration, that it belonged in a museum in New York.

Building Research Capacity During War

We came to build the capability to run a randomized, blinded trial of a cryopreserved cell therapy in critically ill patients – technically demanding anywhere in the world – and I have rarely been so thoroughly impressed.

The senior team and the younger physicians arrived already knowing the protocol and the science; colleagues who spoke no English sat through translation to be certain of every detail, then asked questions sharper than the ones I had prepared for. Whatever the gap was, it closed in days.

The Ministry of Health approved the trial and the first patient was dosed days later. The site continues to enroll.

"Taking part in international clinical trials is important to us not only because it can give our patients access to innovative therapies, but because it builds lasting research capacity within our institution. Our clinicians are gaining experience as investigators, our teams are developing new expertise, and this knowledge remains in

Ukraine. Even during the war, we want Ukrainian patients and medical professionals to be part of the global development of new treatments — not only recipients of what has already been developed elsewhere."

— **Maryana Svirchuk, Executive Director, First Lviv Territorial Medical Union and UNBROKEN**



Maryana Svirchuk

Dr Antonio Paulo Nassar Junior, an intensivist in São Paulo who is not involved in the study, puts the evidence plainly.

"For patients who develop pneumonia caused by multidrug-resistant microorganisms in the ICU, few treatment options are currently available, and no immunomodulatory strategy has been shown to improve survival in randomized clinical trials. Strategies aimed at restoring normal immune system function are scientifically reasonable, but the available data come from animal studies or small human studies without a control group.

That is precisely why a randomized, blinded, placebo-controlled study is the fundamental next step."

— **Antonio Paulo Nassar Junior, MD, PhD, D'Or Institute for Research and Education, São Paulo, Brazil**



Antonio Paulo Nassar Junior

What **Lviv** Taught Us

Development programmes are described by what they produce: data, endpoints, filings. This one produced something I had not planned for.

Patients in one of the hardest critical care environments in the world have access, through a clinical trial, to an investigational therapy they would otherwise never have seen.

And a group of us who arrived to teach spent three days being taught – not about medicine, but about what remains possible in circumstances that would excuse almost anything.

They had every reason to wait for easier conditions and did not: the rehabilitation service, the research capability, the standard of care, all built while the war went on.

What Lviv taught me is what its old town has been saying for seven centuries, with its Armenian, Jewish, Ruthenian and Latin quarters set around one market square: that seriousness and warmth are not opposites.

They are serious about the work, they belong to one another, and they are determined to be glad of their lives while they do it.

I have not found a better formula for hard circumstances, and all of us can learn from it.

References

1. Bellani G, Laffey JG, Pham T, et al. Epidemiology, patterns of care, and mortality for patients with acute respiratory distress syndrome in intensive care units in 50 countries (LUNG SAFE). JAMA 2016;315(8):788–800.
2. Hammond TC, et al. A phase 1/2 clinical trial of invariant natural killer T cell therapy in moderate–severe acute respiratory distress syndrome. Nat Commun 2024;15:974.
3. Hammond TC, et al. Rapid suppression of unresolving disseminated coccidioidomycosis infection with combined IL-15 super-agonist (N-803) and invariant natural killer T cell therapy. Clin Immunol Commun 2026. doi:10.1016/j.clicom.2026.04.002.

About the **Author**

Thiago Favano is Senior Director, Program Operations, MiNK Therapeutics, Inc. (Nasdaq: INKT), the sponsor of the trial described in this article, and wrote this piece on the company's behalf. agenT-797 is an investigational therapy and has not been approved by any regulatory authority for any use.



What the Scan Couldn't Tell Me

This article has been selected as part of the ESO College Voices Contest, a collaborative project between ESO and CancerWorld, tailored for ESO College members.

By Imène Hadji



The scan was stable.

I remember feeling a quiet sense of satisfaction as I shared the news with my patient and his wife. After all, in oncology, stable disease is something worth celebrating. I had already moved mentally to the next part of the consultation: treatment, prescription, follow-up.

Then my patient asked an unexpected question.

“Doctor, can I have two extra weeks before my next chemotherapy? My son is getting married. I want to be in shape for his wedding. What do you think?”

His question caught me off guard. I had been celebrating the scan. He was thinking about celebrating his son’s wedding.

What We Measure, and What Patients Live For

In that moment, I realised how easily we can become focused on the cancer in front of us while forgetting the life surrounding it. Research on oncology patients consistently shows that what matters most to them extends well beyond disease control — practical, emotional and relational needs that rarely surface unless we ask directly [1]. In one international study across seven countries, more than half of patients felt their doctor did not actually know what mattered most to them [2]. We measure cancer in scans, cycles and survival. Patients measure life in weddings, birthdays and moments with the people they love.

The Weight of a Crowded Clinic

I work in a crowded public oncology clinic in Annaba, Algeria, where the reality of daily practice is not gentle. Time pressure in oncology is not a matter of perception — it is documented, and a study of Canadian oncologists found subjective time pressure at work to be a key predictor of burnout [3]. One observational study of hospital physicians found they spent, on average, just over four minutes in direct communication with each patient, against nearly five hours combined on documentation and discussions with colleagues [4]. In that environment, it is easy to unintentionally reduce patients to their disease, even when we deeply care

about them.

Small Choices, Not Big Reforms

I no longer believe that putting patients first requires more time, more staff, or a redesigned system. It requires using the time we already have differently. This is, in essence, what shared decision-making asks of us — not a grand restructuring of care, but a genuine effort to understand what a patient hopes to preserve, and to build the treatment plan around that [5,6,7]. When I told my patient we could safely postpone his treatment, the happiness on his and his wife’s faces stayed with me. Clinically, I had changed the date. For them, I had protected a precious family moment.

What I Do Differently

Over the years, I have built a few small habits into my practice — none of them costly, none requiring institutional change, all of them within reach of any busy clinician:

1. I take a few minutes between patients. Not long — just enough to reset before the next person walks in, so they meet someone present, not someone still carrying the last consultation.

2. I write my own notes. Delegating documentation might save minutes, but it costs something more valuable: the next time that patient sits across from me, I can open their file and pick up exactly where we left off. Patients notice when they are remembered. It puts them at ease almost instantly.

3. I visit my patients during their chemotherapy infusions. Not for a formal check-in, but so they know I am reachable if a question or a worry surfaces while they wait.

4. I take the time to explain what is coming — how the treatment will be given, what side effects to expect, and what to do and what not to do — because uncertainty, left unaddressed, is its own kind of suffering.

None of these habits demand extra hours in the day. They simply ask that the hours we already spend with patients be spent with attention rather than on autopilot.

Beyond the Scan

I still celebrate stable scans. I still track cycles and survival curves, because they matter enormously. But I have learned to ask a second question after the first one: not only "How is the disease responding," but "What is this person hoping to live for." Sometimes the answer is a wedding. Sometimes it is a birthday, a harvest, a graduation, or simply an ordinary Sunday with grandchildren.

Perhaps our role as oncologists is not only to treat the disease, but to understand what our patients are hoping to live for — and to protect it, two weeks at a time if that is what it takes.

Acknowledgement

This article was written by Dr Imène Hadji, one of the two winners of the ESO College Voices Contest 2026, on the topic "Making time for what matters most".

This year's contest once again proved that doctors can also be excellent cancer writers. We received 23 proposals from ESO College members across 19 countries, each exploring the chosen theme. After careful deliberation, guided by CancerWorld's editorial standards, as well as criteria of clarity, relevance, originality, potential impact, and our hallmark style of weaving in interviews and firsthand perspectives, Dr Hadji was selected as one of the winners, and we are

proudly publishing her impactful voice.

References

1. Waelli M, Minvielle E, Acero MX, Ba K, Lalloué B. What matters to patients? A mixed method study of the importance and consideration of oncology patient demands. BMC Health Serv Res. 2021;21:256.
2. van den Ende ES, Schouten B, Kremers MNT, et al. Understanding what matters most to patients in acute care in seven countries, using the flash mob study design. BMC Health Serv Res. 2021;21:474.
3. Kleiner S, Wallace JE. Oncologist burnout and compassion fatigue: investigating time pressure at work as a predictor and the mediating role of work-family conflict. BMC Health Serv Res. 2017;17:639.
4. Becker G, Kempf DE, Xander CJ, Momm F, Olschewski M, Blum HE. Four minutes for a patient, twenty seconds for a relative — an observational study at a university hospital. BMC Health Serv Res. 2010;10:94.
5. Bards CL. Defining "patient-centered medicine." N Engl J Med. 2012;366(9):782–783.
6. Barry MJ, Edgman-Levitan S. Shared decision making — the pinnacle of patient-centered care. N Engl J Med. 2012;366(9):780–781.
7. Politi MC, Studts JL, Hayslip JW. Shared decision making in oncology practice: what do oncologists need to know? Oncologist. 2012;17(1):91–100.

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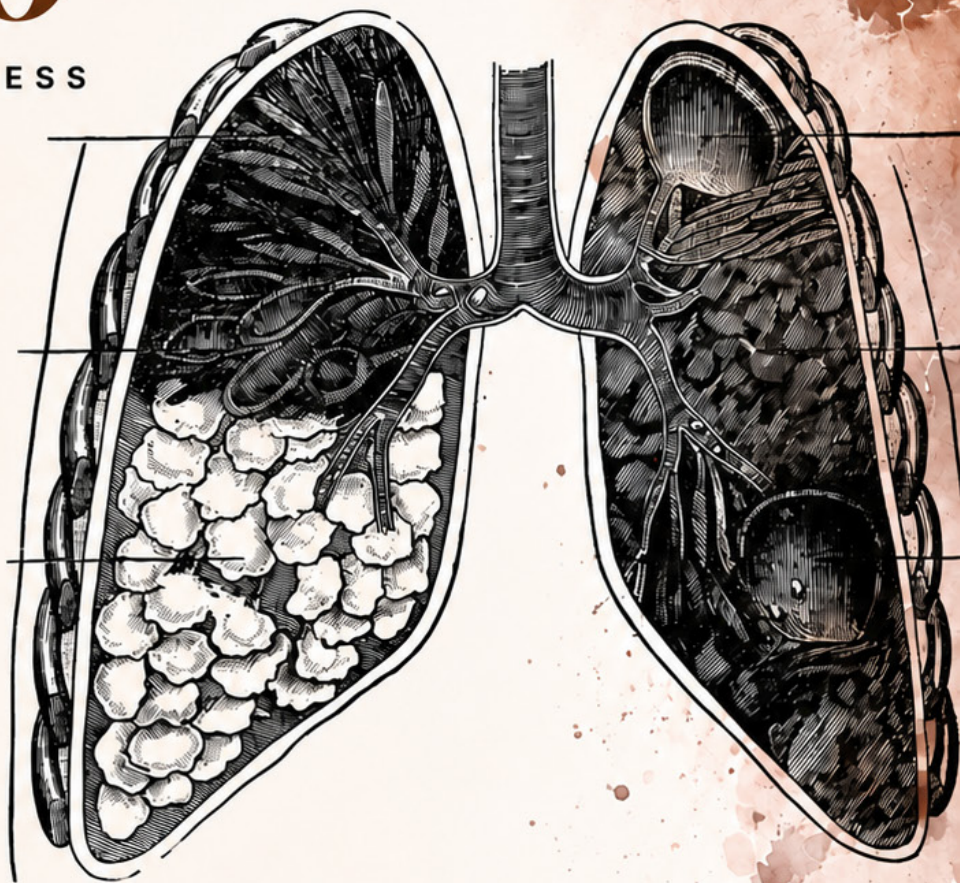
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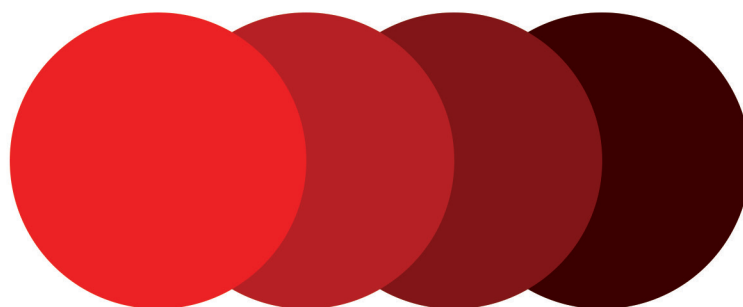
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BUILDING Together

RÜDIGER HEHLMANN





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A close-up portrait of Rüdiger Hehlmann, a middle-aged man with grey hair and a beard, wearing a dark suit, white shirt, and red patterned tie. He is smiling slightly. The background is dark and out of focus.

Building Together

Rüdiger Hehlmann

By Gevorg Tamamyan

He took on the leukemia nobody wanted, helped transform CML from a fatal disease into a chronic condition, and built a network in Europe that changed how leukemia research is done across the world. More than five decades into his career, Professor Rüdiger Hehlmann says the lesson is remarkably simple: cooperate, stay free, accept failure—and know yourself.

Rüdiger Hehlmann describes his career with a word one would hardly expect from someone who helped shape modern leukemia research.

Accidental.

"This career was a little bit accidental, I must say."

It began not with leukemia, but with DNA, the substance of life..

Prof. Hehlmann was fascinated by the emerging understanding of genetic material following the work of Watson and Crick in the 1950s.

"That was very exciting. And I think that was the beginning of my research."

He decided medicine would give him the best route into this new world of biology.

During medical school, he was already doing research. After completing his studies, he pursued his thesis at the Max Planck Institute for Biochemistry in Munich and trained in molecular biology.

That eventually took him to New York.

The Lesson from New York

Prof. Hehlmann spent five years in the USA, four at Columbia University with Dr. Sol Spiegelman.

What stayed with him most was not a specific experiment.

It was a culture.

"In Germany, each candidate for a doctoral thesis did their own job. In New York, it was much more cooperative."

He saw what happened when researchers stopped

protecting individual territories and started working together.

"I realized that by cooperation you make advances much faster. And that this is actually a powerful tool for getting results."

It became one of the fundamental principles of his career.

"The first thing is cooperation. And the second is to be liberal—to allow everybody's opinion."

Germany at the time remained strongly hierarchical.

"The chief decided, people were scared, it interfered with communication."

Rüdiger Hehlmann did not like it.

"That was kind of intimidating for some, and I thought this is not the way to success."

When he later became a professor and department chair, first developing his work in Germany and ultimately in Heidelberg, he deliberately tried to create something different.

"I got good training, that's clear. But leading my own group, in my hospital, I did it differently."

That philosophy would eventually become the foundation of something much larger than a laboratory or a department.

It would help create the European LeukemiaNet.

But first, there was CML.

Nobody Wanted CML

Around the end of the 1970s and beginning of the 1980s, Germany was beginning to organize cooperative study groups around different leukemias.

ALL went to Dieter Hoelzer.

AML went to Thomas Büchner.
Hodgkin lymphoma went to Volker Diehl.

Then there was chronic myeloid leukemia.

Nobody wanted it.

"CML at the time was the most unfavorable leukemia you could think of. Everybody died within a few years."

Treatment options were bleak.

"There were some palliative drugs like hydroxyurea or busulfan. They relieved pain or improved the general well-being, but they all died."

For Rüdiger Hehlmann, the young patients were particularly difficult to watch.

"Particularly young people died. This was hard to bear."

The field offered little excitement scientifically and little hope clinically.

So, when nobody else wanted it, he volunteered.

"I myself am somehow an optimistic character, if I'm permitted to characterize myself. And I said, 'Well, I'll try.'"

But he made one condition clear.

"If nobody wants to do it, you are going to support me. Otherwise, I can't do it."

They agreed. He started.

At first, it looked like an unfortunate choice.

"I started with hydroxyurea and busulfan. People said, 'Well, the most boring study in the nation.'"

Then interferon arrived.

Suddenly, CML began to look different.

"CML was treatable, and maybe even cures Philadelphia negativity in some of those treated patients. This was

unbelievable."

Then came imatinib.

A disease that had once offered little beyond palliation suddenly had a drug capable of transforming its natural history.

And Rüdiger Hehlmann already had something most researchers did not.

An organized study group.

"We already were there. We had a study group, and we joined in with our studies right at the top of the progress."

The disease nobody had wanted was becoming one of the most rapidly changing areas in hematology.

"We were noticed."

He is quick to point out that Germany was not alone.

Cooperative groups were developing in Italy, France, England and elsewhere in Europe.

Something larger was beginning.

Venice, Interferon and the Beginning of a European Network

One of the people who recognized the importance of European cooperation was the Italian hematologist Sante Tura.

"He was a great professor."

Prof. Hehlmann describes him as hierarchical in some ways but transformed by his own training in the United States.

"He had similar views on cooperation and liberality in research."

In 1992, Prof. Tura convened an international meeting on CML and interferon.

"Everybody reported, everybody came. It was a very

good meeting."

Afterward, he began bringing together leading European investigators working on CML (EI-CML).

The first regular meeting of EI-CML took place in Venice in 1993.

At the Hotel Danieli.

"The Hotel Danieli is the number one hotel in Venice, right next to St. Mark's Square. Unbelievable location."

There was a reason.

"The owner of the hotel was a patient of Professor Sante Tura."

Prof. Hehlmann laughs at the memory.

"Sometimes you have important patients who can help your activities in the interest of others."

More importantly, a cooperative community was forming.

And that community needed funding.

"This is important in research. You need money." Industry could provide it.

"You can get it from industry. That is good."

But Rüdiger Hehlmann believed from the beginning that academic researchers also needed independent funding.

"You can also get it from the state or from foundations. This is sometimes even better because you are a little freer."

Industry, he says, understandably wants to study its own products.

"They always want to test their drugs, which is legitimate and very useful very frequently."

But academic medicine has different questions too.

"What is the fate of the patients? How can you follow them best? What methods can you apply?"

One of those questions was molecular monitoring.

Learning to See What Was Left Behind

Molecular monitoring in CML developed initially around transplantation.

"You needed very sensitive methods to detect this minimal residual disease, and that was molecular biology and PCR."

For Prof. Hehlmann, it was almost a return to where he had started.

DNA. Molecular biology. The laboratory training he had brought back from New York.

But by now, the questions were directly connected to patients.

Meanwhile, Germany was trying to bring its separate leukemia study groups together.

The government launched a competition to create major competence networks in medicine.

There were approximately 180 applications.

Prof. Hehlmann's group was one of them.

"I heard unofficially we ranked number five. I think fifteen applications were funded, so we were among those who were funded."

The funding was substantial.

"There were many, many millions of Deutsche Mark first and then Euros which we got over time."

The German Competence Network on Acute and Chronic Leukemias (KNL) was established.

The national competence network brought different leukemias together.

Then Europe offered a larger opportunity.

117 Groups

In 2002, the European Union launched its Networks of Excellence initiative.

At the EI-CML meeting in Palermo in 2002, Rüdiger Hehlmann's colleagues asked him to coordinate an application that would bring together leukemia research

across Europe.

Not only CML. All leukemias.

They began contacting individual study groups across individual countries. I had an incredible team in Mannheim.

"Each country had little networks for each leukemia. In order to get them all together, you had to ask each single group in each single European country to join in."

They did.

"It was amazing. They all were interested."

By the time the application was completed, 117 study groups had joined.

The proposal scored extremely well.

Based on the size of the consortium and the original framework, Prof. Hehlmann remembers calculating that the network might receive approximately €28 million.

Europe had another idea.

"They said, 'Well, we should fund you, but I think six million instead of twenty-eight shouldn't really jeopardize the network.'"

Prof. Hehlmann smiles.

"On the one side we were pleased. On the other side, a little disappointed."

There was only one sensible response.

"Okay. Let's try and do."

The European LeukemiaNet was born.

"And the activity became a success again."

How the **ELN** Recommendations Began

There was an immediate problem.

A network of 117 groups is not automatically a network.

"The group was heterogeneous."

Different countries and centers used different definitions,

different treatment approaches and different methods of monitoring.

Rüdiger Hehlmann and his colleagues decided that the first task had to be standardization.

"We decided that it was very important that we start with recommendations on treatment standards, on definitions—what a remission is and what we consider a cure, how we should monitor, and so on—for each leukemia."

That decision became one of ELN's most consequential contributions.

The first CML recommendations were published in 2006.

The lead author was Michele Baccarani, himself a student of Sante Tura.

"He did most of the work."

The recommendations were widely adopted.

"Novartis had this blockbuster drug, imatinib, and they wanted everybody to know how to handle this drug and how to monitor the success and the residual disease."

The company supported the first ELN Frontiers educational meeting.



ELN meeting, 2023

ELN developed two parallel traditions: smaller scientific working meetings and major educational Frontiers meetings, the latter in cooperation with Novartis.

There would eventually be nine large Frontiers meetings across Europe

"Eight hundred to a thousand people."

In addition, six meetings for young hematologists were organized in Naples

The meetings served two purposes.

"On the one side, it brought information on imatinib, on monitoring and how to deal with it to the people."
And on the other:

"It was an advertisement for ELN."

For years, ELN and Novartis cooperated through what became known as the EUTOS (European Treatment and Outcome Study) initiative.

One project created a European CML registry, gathering information from thousands of patients across more than twenty countries.

Another focused on something increasingly essential to modern CML care - standardizing molecular monitoring.

Making Molecular Monitoring Speak the Same Language

Prof. Hehlmann had established a strong molecular laboratory in Mannheim, drawing on his earlier training in molecular biology.

Other major CML centers brought their expertise.

There was John Goldman in London.

"He was a leader in CML in Europe. He was a very good person. Three of my coworkers trained with him".

There was Nick Cross working with John Goldman, one of the key figures in molecular diagnostics.

And in Australia, Tim Hughes.

"He also was a leader in molecular diagnosis and molecular biology."

The groups came together.

"That established how molecular monitoring should be done."

It was no longer enough to say that a patient was responding.

The field needed common definitions.

"What we consider an optimal response. What we consider a failure. And there always is a grey area in between."

ELN produced recommendations not only for specific leukemias, but also for the disciplines that made leukemia care possible.

Molecular monitoring. Morphology. Cytogenetics. Supportive care. Infections.

"The treatment of leukemia is accompanied by opportunistic infections. Many patients with leukemia don't die directly of the insufficiency of their blood production. They die of infections."

So ELN created a work package specifically dealing with opportunistic infections and regularly produced recommendations in the field.

The ambition was broad.

"To build a comprehensive network that could optimize treatment of leukemia globally."

Globally was an important word.

Because despite its name, European LeukemiaNet was never intended to stop at Europe.

European in Name, Global in Reality

The original 117 groups did not remain 117 for long.

"Others realized this is good. They wanted to join."

Within a relatively short period, participation approximately doubled.

Some groups later became less active. Investigators retired. Leadership at centers changed. And new centers continue joining.

"It always depends on personalities at each center. When they leave the interest of the center decreases and they don't join the activity."

"There's no formal exclusion of anybody."

Prof. Hehlmann eventually stopped counting.

"I think we leveled off at about two hundred twenty or so centers worldwide."

Worldwide.

"The name is European LeukemiaNet, but it is and was from the very beginning international."

American investigators were involved from the earliest recommendations.

Rüdiger Hehlmann names Richard "Dick" Silver, who had chaired the American Society of Hematology panel on interferon and CML in the 1990s.

He recalls the major leaders Hagop Kantarjian and Moshe Talpaz, Richard Larsson and Charles Schiffer.

"They really contributed, and it became a very good cooperation."

The same happened in AML.

Thomas Büchner, one of the senior figures in German hematology, was deeply involved. Prof. Hehlmann remembers him also as the physician who cared for Raisa Gorbacheva, wife of Mikhail Gorbachev, during her leukemia.

"She had a type of leukemia that just could not be cured."

Then came Hartmut Döhner, Clara Bloomfield.

And a relationship that illustrates how a European network became global.

The "Queen of AML"

Rüdiger Hehlmann calls Clara Bloomfield one of the defining figures in modern AML.

"She was called the Queen of AML."

Bloomfield had been appointed by the European Union to independently review the progress of ELN.

The network had to justify its public funding through annual reports.

"Six million is still a lot of money."

Bloomfield was the person reading the reports.

Initially, Hehlmann says, she was simply a demanding external reviewer.

"She was a very critical person. Initially she was neutral."

Then something changed.

"After one or two years, she realized this was something she liked. From a critical reviewer, she became a supporter."

When ELN later developed its major AML recommendations, Hartmut Döhner became lead author. "He was supported by leading experts around the world." Clara Bloomfield was a major intellectual force behind the effort.

"She had incredible energy and also a good knowledge, of course."

For Rüdiger Hehlmann, it was another example of what he had first learned at Columbia decades earlier.

Cooperation could move science faster than hierarchy or individual ownership.

But there was another rule he considered equally important.

Freedom.

"I Like to Stay a Free Man"

Twenty-five years after the beginnings of ELN, Prof. Hehlmann still worries about the same thing every academic network worries about.

How to pay for it.

The next ELN symposium is planned for Venice—returning, symbolically, to the country that played such a major role in its origins.

"It will be twenty-five years ELN."

But beyond that?

"We have to decide how we continue, because in 2029 we have not yet the funds to pay for the symposium."

Funding is never abstract for him. It determines whether people can meet, whether infrastructure survives and whether collaboration continues.

Yet there is one principle he has tried to protect.

"We try to do the whole thing without money from industry."



ELN meeting, 2010

Not because he opposes industry.
Far from it.

"I'm a strong supporter of cooperation with industry."
But he wants academia to retain the ability to ask its own questions.

"I like to stay a free man."

Industry has legitimate interests. Academia must have something else.

"I also think that academia needs some free space."

He pauses.

"ELN is a free space. Everybody can do the research they like."

After the original public funding ended, ELN survived largely through research projects led by its members.

"They are the leaders in their field. They are active, and they apply for money from the European Union in the new programs."

Over the years, ELN members have participated in several major EU research contracts, including Horizon programs.

A portion of project funding—Hehlmann estimates around five percent in some cases—could support communication and dissemination through ELN.

Cooperation with KNL helps.

The network continued organizing its symposium in Europe together with KNL.

It also developed an annual meeting in the United States around ASH.

Other educational partnerships brought additional support.

"From many sources, thus far we managed."

He does not pretend the future is guaranteed.

"Let's see how it goes on."

But he is convinced of one thing.

"I think we probably need to continue for some more years."

The reason is visible in the patients.

From a Fatal Leukemia to a Normal Life

When Rüdiger Hehlmann began working on CML, virtually every patient eventually died from the disease.

Today, the picture is almost unrecognizable.

"Virtually nobody dies of CML anymore if he is in chronic

phase and diagnosed early enough."

The blast crisis remains dangerous.

"When he is in blast crisis, of course things are bad—but not hopeless. Even there it is not hopeless."

For patients diagnosed in chronic phase, however, the transformation is extraordinary.

"You have a very high probability of leading a normal life and becoming as old as the general population."

This is one of modern oncology's great success stories.
"With other leukemias, we are not there yet."

He points particularly to acute leukemias, where many patients still die from their disease.

"So from that point of view, I think for the time being we have got to continue."

He does not know exactly how ELN will be funded in the years ahead.

His attitude remains what it was when he accepted the disease nobody wanted.

"If there is time, there is coming a solution."

It sounds almost too optimistic.

But optimism, in Rüdiger Hehlmann's career, has usually been followed by work.

"Join In First"

When I ask what he would tell young physicians and researchers hoping to become the next generation of leukemia leaders, his first advice is not to start by trying to become a leader.

It is to join.

"If you want success, the best for the next generation is first to join in."

Before trying to reinvent a field, understand what already exists.

"Reach and have the level that's already available."

Find teachers.

"Have good teachers. Learn everything."

Only then should you try to move the frontier.

"And then from there, developing new ideas, new approaches. That's the way it should be done."

Youth has an advantage that institutions cannot manufacture.

"Be young enough to still have the energy and the spiritual freshness which you need to start something new."

He remembers what it took to prepare the original European LeukemiaNet application.

"To file an application to the European Union, this is like a book."

Not metaphorically.

"You have to write a book and edit a book."

It consumed months and required team work.

"It's half a year's work."

Every possible question had to be addressed.

"What are the prospects for the future? What are alternatives in case you fail? What can you do otherwise?"

"You have to think all of this and write it down in a convincing manner."

Prof. Hehlmann is now over eighty.

"Somebody like me, I'm beyond eighty meanwhile, I couldn't do it."

The next frontier belongs to younger investigators.

"The young ones, they can go to new borders, new frontiers."

One area especially interests him.

Sequencing.

"This is a new technology."

With sufficiently powerful sequencing technologies and

analytical programs, he believes another major leap may be possible.

"This could provide a new approach to solving the cancer problem."

But Rüdiger Hehlmann's own career also carries a warning.

Not every promising idea works.

Sometimes you can spend ten years looking for something that is not there.

Ten Years Looking for the Wrong Thing

At Columbia and afterward, Hehlmann spent years searching for a human leukemia virus.

"At the time, we thought this could be the key to the problem."

It was not.

"We could not associate any virus with any of the frequent leukemias."

There were rare exceptions in certain geographic populations, including virus-associated hematologic diseases described in Japan and the Caribbean.

"But this was very rare and couldn't be used."

Prof. Hehlmann estimates that he invested roughly a decade of his scientific life in the search. Then he says it plainly.

"Ten years, and it failed."

But failure in science is rarely empty.

"What we learned was something completely different."

Research into retroviruses contributed to the emerging understanding of oncogenes, the detection of retroviral oncogenes.

"These leukemia viruses which we were looking for, they are retroviruses—RNA viruses with a reverse transcriptase. And some of these viruses carry oncogenes."

His laboratory was also detecting something strange.

"We didn't find the leukemia virus, but we found many footprints of viruses—virus-related RNA, virus-related proteins."

There was no transmissible infectious virus.

"We couldn't really understand."

Years later, those observations were interpreted in the context of the enormous quantity of endogenous retrovirus-related and other repetitive sequences embedded in the human genome, even complete endogenous retroviral genomes

It was not what they had set out to discover.

But it was biology and interesting.

And the technologies developed during the search for human retroviruses became critically important when another retrovirus appeared.

HIV.

"Without the search for human retroviruses, leukemia viruses, we wouldn't have had the technology and the know-how to isolate HIV so quickly as we did."

When Robert Gallo's and Luc Montagnier's groups demonstrated the retroviral nature of HIV, Hehlmann's laboratory naturally moved into AIDS research as well.

But eventually he made another difficult decision.

To stop.

Knowing What Not to Do

Clinical research is expensive.

Cancer is expensive.

AIDS research was even more expensive in that era.

A hospital cannot survive by treating only the most resource-intensive diseases.

"Your hospital goes bankrupt if you do research only on expensive diseases, because they usually calculate a mix of diseases. Some are very cheap and some are expensive. At least in Germany it is this way."

When Prof. Hehlmann was called to Heidelberg University, he decided not to continue AIDS research.

"I thought I couldn't do that."

He continued cancer research instead.

And again turned toward another fundamental biological question.

Chromosomes. Cooperating with Peter Duesberg.

There had been observations going back approximately a century suggesting that aneuploidy—the abnormal distribution of chromosomes—might either cause cancer or represent an important intermediate step in carcinogenesis.

Rüdiger Hehlmann continued experimental work in this field until retirement.

He retired from his university faculty in 2017 after having completed his last randomized study on imatinib in CML, CML study IV on 1550 patients followed for 10 years.

At seventy-six.

"So now you know how old I am."

He laughs.

"Thank goodness I'm well. I'm lucky again—still healthy, active."

Retirement ended his experimental work. But it did not end his role.

"What I'm doing right now is giving the chance for the young ones to join in."

And maintaining what his generation built.

"Maintaining the infrastructure of what we achieved together with my colleagues."

He insists on the word together.

"It's not me alone."

He does not even like calling himself the leader.

"I'm calling myself always the coordinator."

Then comes perhaps the best definition of leadership in the entire conversation.

"I'm the one who is doing the work, trying to get things together. The chiefs are my colleagues who are actively doing something."

Why Some Things Are Easier **at Sixty-One**

Rüdiger Hehlmann was 61 when the European LeukemiaNet was created.

Looking back, he believes his age actually helped.
"At sixty-one, you are not anymore a competitor."

That matters in science.

"It was easy for people to trust me."

Why?

"Because it was quite clear at age sixty-one I would not take anything away from anybody anymore."

Scientific collaboration may sound idealistic, but Prof. Hehlmann is realistic about the incentives underneath it.

"In research, you always have to be aware that you get the credit for what you are doing, both for your career but also for the support of your research."

Young scientists need recognition. They need papers. They need grants. They need independence. And that can inevitably create competition.

"There are certain things you can only do when you are young."

But age brings another kind of advantage.

"There are certain things which you do best when you are a little older."

By then, perhaps, you can build structures without people wondering whether you are building them for yourself.

Rüdiger Hehlmann also credits something else throughout his career.

Friends.

"I had so many good friends who really helped me doing

this."

Thomas Büchner was one of them.

When the EU call for Networks of Excellence appeared, Büchner immediately saw the opportunity.

"He came to me and said, 'Rüdiger, this is for us. We've got to apply. We've got to use this chance.'"

Hehlmann's answer was typical.

"Okay. Let's try."

The Hardest Decision: Knowing Yourself

When I ask Prof. Hehlmann what was most difficult in his career, he does not name funding.

He does not name a failed trial.

He does not name bureaucracy.

He talks about self-knowledge.

"The first is you have to decide what you can do. You have to know yourself somehow."

As a young researcher at Columbia, he was deeply immersed in experimental molecular biology.

His colleagues were brilliant.

The environment was cooperative.

But it was competitive too.

"You had to come up with good ideas that were realizable."

He was even offered the possibility of pursuing an academic career at Columbia.

Then he looked carefully at the scientists around him.

"They were a tick better in designing experiments and coming up with experimental ideas."

He asked himself a brutal question.

Could he compete with them for an entire career?

"I thought that I would have a hard time to successfully compete with these dear colleagues of mine in the long term."

So he walked away.

"I decided I would not do an academic career at Columbia."

Instead, he returned to clinical medicine.

"Back to clinical research and to patients."

He thought clinical research might fit him better.

"I could imagine that clinical research was more for me, and I could do this better—maybe better than others."

But going back meant starting over.

Starting Again While Everyone Else Knows More

Hehlmann entered an internship at Presbyterian Hospital in New York.

"Straight medical internship."

It was brutal.

"Every third night on call, and some calls every second night."

His peers were younger.

"They were five years younger, roughly."

And after years in the laboratory, there was another uncomfortable reality.

"They knew more than I did."

He had forgotten some of his clinical medicine.

"So that was not so easy."

For someone already established in research, stepping backward into a position where younger physicians were more clinically fluent required a different kind of confidence.

"It was difficult to make a decision to stop with what you are doing and step backwards."

But the decision ultimately defined everything that came

afterward.

The molecular biologist returned to clinical research.

The laboratory scientist became a clinical investigator.

The investigator became a coordinator.

And the coordinator helped build a network.

When a Reviewer Declared the Field Dead

There were other difficult moments.

After returning to Germany, Rüdiger Hehlmann continued searching for human leukemia viruses and other possible cancer-associated viruses, including in breast cancer and melanoma.

Then, around 1980, funding collapsed.

One influential reviewer made a devastating judgment.

"If something has been proven now extensively, it is the non-existence of human retroviruses."

That single conclusion, Hehlmann remembers, "killed many grants."

Including theirs.

Then HTLV-1 was discovered.

"It was rare, but anyway, it showed the existence."

Funding became possible again.

Then came HIV.

The reviewer who had declared human retroviruses essentially nonexistent never raised the subject again. Prof. Hehlmann does not sound bitter.

Instead, he draws a broader conclusion.

"Even if you are very smart and important, you can be wrong once in a while."

Scientific authority does not protect anyone from being wrong.

And scientific careers sometimes depend on surviving long enough for the evidence to change.

High-Risk Science

Prof. Hehlmann distinguishes between two types of research.

One begins with something you already know exists and tries to understand its mechanism.

"There is an event, or some process or some outcome, and then you try to understand how it came about."

He calls that relatively low-risk research.

Then there is the search for something unknown.

"The search for the unknown is high risk."

That is what he chose.

"So I did high risk."

Sometimes it works.

Sometimes it consumes ten years and the outcome is something different.

Sometimes funding disappears because the thing you are searching for may not exist.

"I survived, luckily."

What does that require?

"You need persistence."

"You have to be active."

And perhaps most difficult of all:

"You must not be afraid to work for nothing."

"The research you are doing might fail. You can show your lab books, just to justify your time, but it's nothing your peers would say is great or fantastic. You would just barely survive."

That is the risk.

But there is another side.

"If you find a positive result, this is very rewarding."

He remembers something Clara Bloomfield once told him.

"When you find something new, this is the greatest."

For Rüdiger Hehlmann, that remains the reward.

Cooperation, Competition and Hartmut Döhner

At the end of our conversation, I ask the question I ask every guest:

Who should I interview next?

His answer comes immediately.

"Hartmut Döhner."

AML, he says, remains a major frontier.

"This is a hot topic. He is successful. I think he is right now the flagship of recommendations for AML."

Döhner had trained with Clara Bloomfield before returning to Heidelberg.

And Hehlmann remembers exactly how he entered the German leukemia competence network.

Döhner had not been part of the original successful application.

The funding competition had already ended.

Hehlmann's group had won.

Then Döhner asked to join.

"I said, 'Well, why didn't you apply yourself?'"

There was a practical problem.

"The funds were earned by the others. How should I do this?"

Döhner persisted.

So did his chief at the time, Anthony "Tony" Ho, a friend of Hehlmann's.

Eventually, principle won.

"Cooperation is a principle which I like."

Döhner was good.

The group was next door.

Ho was a friend.

So Hehlmann agreed.

"Okay, we take you."

When European LeukemiaNet was created later, Döhner was there from the beginning.

Today, another generation has followed.

Döhner's student Lars Bullinger in Berlin has taken over Rüdiger Hehlmann's role in the German competence network for acute and chronic leukemias.

"That is a generation."

Prof. Hehlmann looks back at his decision to let Döhner join a network whose funding others had won.

"I'm very happy that we did it the way we did."

Perhaps that is the Rüdiger Hehlmann story in one sentence.

Again and again, when science gave him the choice between protecting territory and opening the door, he opened the door.

He took the disease nobody wanted.

He left a career path at Columbia because he believed others could do that work better.

He returned to clinical medicine even when younger doctors knew more than he did.

He spent ten years searching for a virus he never found. He built networks instead of kingdoms.

And at 61, when he was finally old enough not to be seen as a competitor, he used that freedom to bring competitors together.

More than twenty years later, the European LeukemiaNet remains.

Rüdiger Hehlmann does not call himself its chief.

He calls himself the coordinator.

"I'm the one who is doing the work, trying to get things together."

And for the generation coming after him, his advice is equally simple.

"Join in first. Have good teachers. Learn everything."

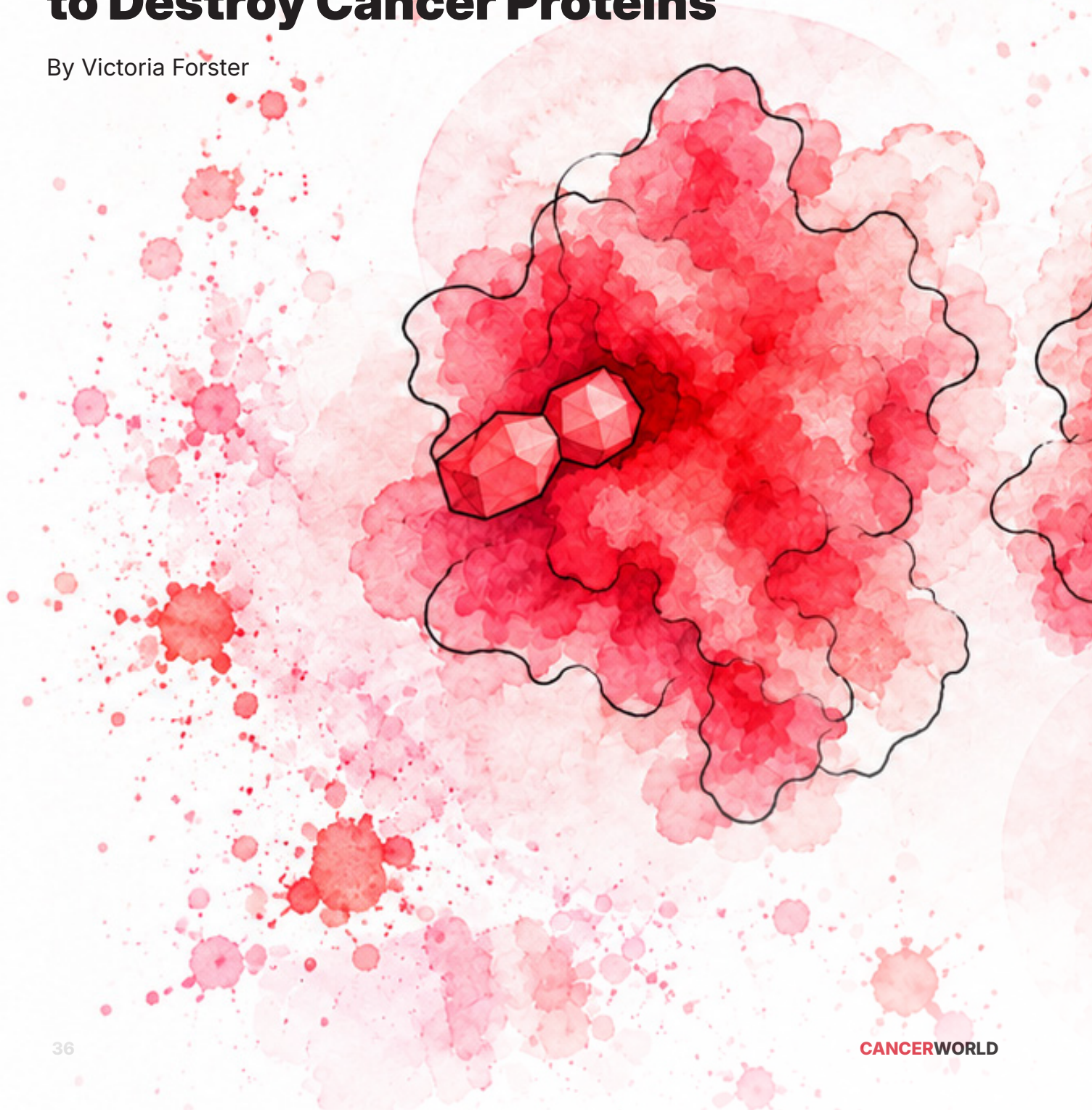
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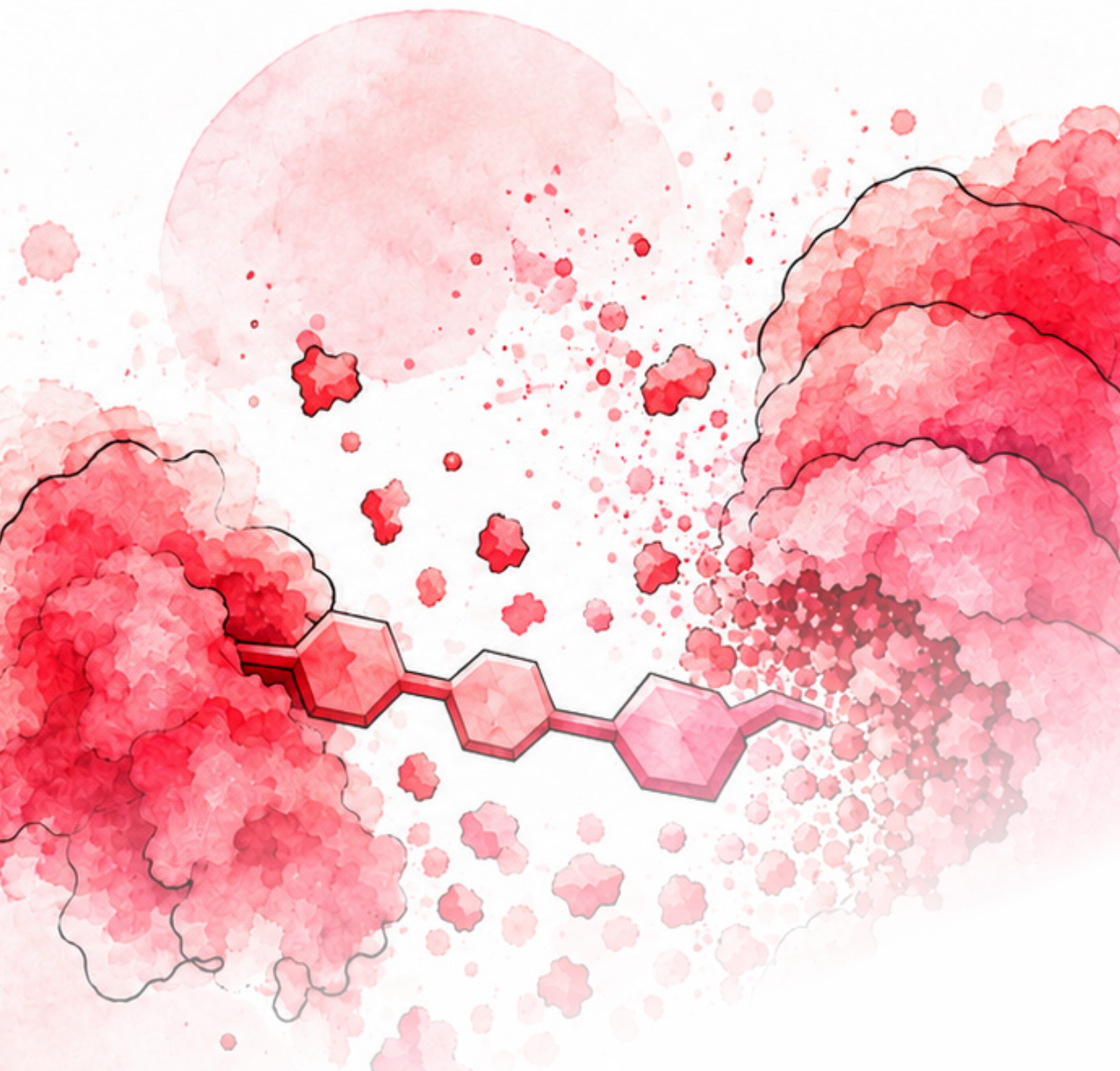
"Go to new borders. New frontiers."

Beyond Blocking

The New Targeted Drugs Designed to Destroy Cancer Proteins

By Victoria Forster





A new wave of cancer drugs has arrived and, rather than simply blocking their targets, these therapies are designed to destroy them. Protein degraders are one of the most exciting new classes of drugs in development and experts are hopeful that they might be able to successfully target previously “undruggable” proteins. Although many of these

therapies are still in various stages of development, a small number of approved drugs and ongoing clinical trials suggest that protein degraders can produce meaningful responses in people with cancer.

“Protein degraders are one of the most exciting new therapeutic modalities to enter the clinic,” said

Dr Alice Shaw, MD, PhD, Chair in the Department of Medical Oncology at Dana-Farber Cancer Institute in Boston, MA.

"They not only inhibit function, but they harness the cell's own protein degradation machinery to eliminate critical proteins that may be driving the abnormal growth and survival of cancer cells."

This utilisation of a cell's own protein disposal and recycling system is part of this innovative new approach. Many targeted drugs block cancer-driving proteins, leaving room for resistance when mutations change the proteins further, or the drug gets broken down. But degraders tag proteins for destruction, eliminating them entirely.

Turning the Cell's Disposal System Against Cancer

One type of degrader therapy, known as a PROTAC (proteolysis targeting chimera), works by specifically binding a protein target and linking it to a component of the cell's natural protein degradation system, an E3 ubiquitin ligase, notifying cell systems to destroy the protein. One PROTAC, vepdegestrant, which targets the estrogen receptor in patients with an ESR1 mutation, has received FDA approval¹ for the treatment of advanced breast cancer. Many other drug candidates are in various stages of development and clinical trials.

"Given the expansive target space, degraders could impact many different cancer types, but the ones that may derive the greatest benefit include small cell lung cancer, neuroblastoma, Ewing sarcoma, lymphomas and other hematologic malignancies," said Dr Shaw.

Some of these cancers, including neuroblastoma and Ewing sarcoma, primarily affect children, an underserved population in cancer drug development. This is partly due to the relative rarity of many pediatric cancers compared to cancers that predominantly affect adults.

Making the 'Undruggable' Druggable

One of the major hopes for protein degrader therapies

is that they may be able to target proteins that have so far been difficult, or impossible to drug with conventional approaches. A key class of these proteins is transcription factors, which despite their vital importance in many cancers, have traditionally been difficult to target.

"Protein degraders are giving us our first real foothold into drugging this important class of proteins and many others. These previously undruggable targets include transcription factors such as MYC and BCL6," said Dr Shaw.

Unlike conventional drug targets including enzymes and receptors, most transcription factors do not have well-defined pockets where small drug molecules can be designed to bind. Some transcription factors also have highly flexible structures, making it harder to identify a stable drug binding site.

Protein degraders, with their vastly different mechanism of action to many other targeted drugs show promise in overcoming these barriers.

Another type of degrader therapy is a "molecular glue" which stabilizes or creates an interaction between a target protein and a cell's protein disposal system, but without two specific ends to create a bridge. Some successful cancer drugs, such as lenalidomide and pomalidomide, were retrospectively found to function as molecular glue degraders after several years of clinical use.

"The clinical success of immunomodulatory drugs has validated this mechanism of action and spurred the hunt for novel molecular glue degraders to address unmet needs in malignant and non-malignant disease," said Dr Shaw.

In August 2026, another molecular glue degrader, iberdomide, was granted accelerated FDA approval for pre-treated multiple myeloma in combination with other therapies².

Also in multiple myeloma, the molecular glue degrader mezigdomide produced responses in more than 80% of patients in a recent phase III trial³ and significantly improved progression-free survival compared with standard treatment. Many other molecular glue degraders and PROTACs are currently in various stages of development.



Dr Alice Shaw is one of several prominent oncologists and researchers who is hopeful about the potential of protein degrader therapies in oncology

The Inevitable Question of Resistance

But one issue constantly in front of mind for anyone involved in the targeted cancer therapy space is that of resistance. New generations of targeted drugs, including tyrosine kinase inhibitors (TKIs) that have transformed the treatment of several cancers over the past two decades, have been constantly developed to overcome resistance.

"The mechanism of action of targeted protein degraders is fundamentally different from that of conventional inhibitors, such as tyrosine kinase inhibitors, so we do anticipate that resistance to degraders in the clinic will be different and in fact more complicated than resistance to TKIs," said Dr Shaw.

Acquired mutations in the target protein have historically been a mechanism of resistance to targeted cancer drugs and this may still be an issue for protein degrader therapies. Other resistance mechanisms may be particularly relevant to this class of therapies, including changes in the protein degradation pathway.

"As more targeted protein degraders enter the clinic, understanding why cancers become resistant will be critical to designing next-generation degraders and informing rational combinations to overcome or prevent resistance," said Dr Shaw.

Beyond the First Generation

Although most degrader therapies in development are

PROTACs or molecular glues, other approaches exist and researchers are already looking beyond the first generation of degrader therapies. This includes making degraders more selective for cancer cells and combining them with other established treatment approaches. There is significant excitement and hope about the potential of degrader therapies in oncology, but what their overall impact on patients might be is difficult to accurately predict.

"Whether targeted protein degraders will prove to be as transformative as kinase inhibitors or immunotherapy remains to be seen, but the possibility of drugging previously undruggable targets is incredibly exciting and has the potential to lead to many new therapeutic opportunities," said Dr Shaw.

References:

1. FDA approves vepdegestrant for ER-positive, HER2-negative, ESR1-mutated advanced or metastatic breast cancer | FDA. Accessed September 9, 2026. <https://www.fda.gov/drugs/resources-information-approved-drugs/fda-approves-vepdegestrant-er-positive-her2-negative-esr1-mutated-advanced-or-metastatic-breast>
2. FDA grants accelerated approval to iberdomide with daratumumab and hyaluronidase-fihj and dexamethasone for multiple myeloma | FDA. Accessed September 9, 2026. https://www.fda.gov/drugs/resources-information-approved-drugs/fda-grants-accelerated-approval-iberdomide-daratumumab-and-hyaluronidase-fihj-and-dexamethasone?utm_source=chatgpt.com
3. Dimopoulos MA, Schjesvold F, Fu C, et al. Mezigdomide, carfilzomib, and dexamethasone versus carfilzomib and dexamethasone in patients with relapsed or refractory multiple myeloma (SUCCESSOR-2): a phase 3, open-label, randomised controlled trial. The Lancet. 2026;408(10551):219-233. doi:10.1016/S0140-6736(26)01088-3

About the Author

Victoria Forster, PhD is a cancer research scientist, childhood leukemia survivor and health writer. Passionate about engaging patients in research and healthcare systems, she earned her PhD in cancer biology in the U.K. and now works as the head of Patient Engagement at an academic hospital in Toronto, Canada.

TIME IS OF **ESSENCE**

**Europe has never
had more powerful
tools against cancer.**

**But progress means
little if patients
cannot reach them
in time.**

By Knarik Arakelyan



Cancer has never moved at the speed of bureaucracy.

Today, science can identify molecular alterations that were once invisible. Biomarker testing can help determine treatment choices. New therapies are expanding possibilities for patients, while cancer has secured an increasingly prominent place on Europe's political agenda.

And yet a patient can still live in the wrong country for a test.

Wait too long for a diagnosis.

Never be told that biomarker testing exists.

Be unable to access a treatment already made possible by science.

Or survive cancer only to discover that the healthcare system designed to save their life has far less to offer them afterwards.

This is one of the defining contradictions of cancer care today.

We know more. We can do more. But not everyone can benefit equally from what we know and what we can do.

For **Antonella Cardone, CEO of Cancer Patients Europe**, this is where the real measure of progress begins.

"So many people do not feel the benefits of progress in cancer care in their everyday life."

And when asked what she wishes every policymaker understood about being a cancer patient, Cardone reduces an extraordinarily complex policy challenge to four words:

"Time is of essence."

Because behind every discussion about screening coverage, reimbursement, biomarker testing, health technology assessment or access to innovation is something much less abstract.

There is a person waiting.

Becoming an Advocate by Decision

Cardone did not enter patient advocacy because of her own diagnosis.

She chose it.

An engineer with an MBA, she encountered the voluntary sector in Italy almost by chance. What began with volunteering developed into professional work within one of the country's largest voluntary organisations, followed by international work on social and health issues, including tobacco control.

Her career later took her to the American Cancer Society and eventually into cancer patient advocacy.

But Cardone makes an important distinction about how that journey began.

"I became a patient advocate, not by chance, not because I had a condition, but by decision."

Over time, however, the professional became deeply personal.

Her mother was diagnosed with cancer and died within six months. Later, her sister developed cancer and recovered. Then, two years ago, a serious accident placed Cardone herself inside the healthcare system in a different way.

Being an advocate, being a caregiver and becoming a patient gave her different perspectives on the same system.

And they reinforced a lesson that no policy document can fully capture:

"Every patient is unique. So, there is no standard patient, no standard decisions."

It is a simple statement with profound implications for healthcare.

A diagnosis may be clinically defined, but the person receiving it cannot be reduced to a diagnosis.

Age, family, work, finances, geography, personal priorities and the particular moment in life when cancer arrives all influence what matters to an individual patient. Cardone is equally clear about another assumption healthcare must confront: professionals cannot automatically speak on behalf of patients simply because they understand their disease.

Patient organisations face the same responsibility. Even when advocating collectively, she says, generalisation is difficult because every person brings different circumstances and preferences.

Expertise about cancer is not the same as expertise about another person's life.

When Progress Exists, But Patients Cannot Feel It

Europe has made cancer a major political priority.

Cardone describes Europe's Beating Cancer Plan and the Cancer Mission as groundbreaking achievements. Yet the distance between political ambition and everyday reality remains substantial.

Persistent inequalities affect access to screening, early diagnosis, biomarker testing, treatment and survivorship care.

"The implementation is uneven and often under-resourced at the European level."

Screening illustrates the problem.

Targets for timely diagnosis exist, yet patients in some countries still encounter later detection, longer waiting times and fragmented pathways. Cardone points to a **nine-fold variation in breast cancer screening uptake across countries**, with particularly low uptake in Bulgaria and Romania and much higher uptake in Portugal, Sweden and Finland.

The same divide is becoming increasingly important as oncology moves towards precision and personalised care.

Science is advancing.

Access is not advancing equally.

"We have very important new treatments, but they are not always accessible."

Biomarker testing, genomic profiling and digital tools may be available in principle, Cardone says, but they remain far from routine across all countries and regions.

Sometimes patients do not even know the option exists.

Cancer Patients Europe recently conducted a survey looking specifically at ESR1, a mutation relevant in metastatic breast cancer. According to Cardone, **70% of respondents were unaware of biomarker testing**.

That figure exposes something larger than an information gap.

A test may exist.

A treatment may exist.

A scientific breakthrough may exist.

But unless the patient who needs it can actually reach it, **the journey from discovery to impact remains unfinished.**



Round table organised by Mission Early: "Beating Cancer Early: From Evidence to Action"

Why Geography Still Determines Opportunity

Cancer inequality does not have a single cause.

European health systems differ substantially in funding, organisation and capacity. Investment in prevention and early detection varies. Some countries have robust screening and awareness programmes; others have more limited coverage.

Innovation also travels at different speeds.

EMA-approved therapies, biomarker tests and digital tools can reach patients at very different times depending on national reimbursement arrangements and infrastructure.

Then there are the circumstances surrounding healthcare itself.

Poverty, education and geography can influence awareness, the ability to reach healthcare facilities, adherence to treatment and a person's capacity to navigate increasingly complex systems.

Cancer inequality is therefore rarely one barrier.

It is often one barrier layered upon another.

Cancer Patients Europe is working across several of these areas. Cardone points to its involvement in Joint Clinical Assessments and Joint Scientific Consultations, where the organisation contributes patient perspectives and advocates for changes to the system.

The organisation is also addressing international pricing approaches that, it argues, could delay access to innovative treatments in countries with lower purchasing capacity and consequently widen existing inequalities.

For Cardone, however, Europe must also confront another question:

How will today's cancer ambitions survive tomorrow's political cycle?

What Happens after Europe's Beating Cancer Plan?

Europe's Beating Cancer Plan has mobilised political attention, resources, initiatives and data.

But plans have timelines.

Cardone is concerned about what happens to that accumulated work when the current resources and implementation period come to an end.

"What's going to happen with the incredible legacy to cancer, to all the work that has been put into its development and implementation?"

One proposal being advanced by Cancer Patients Europe is greater attention to health within the **European Semester**, beginning with cancer.

The attraction, Cardone argues, is that Europe does not need to invent an entirely new mechanism.

Much of the information already exists.

The European Cancer Inequalities Registry and other European-level sources have generated substantial data. National cancer plans already provide frameworks that could help monitor implementation and indicators.

"There is no need to create new data. The mechanism

is there."

The question is whether Europe can turn existing knowledge into sustained accountability.

Because the success of a cancer strategy should ultimately be measured not by how ambitious it was when announced, but by **what remains after the programme itself has ended.**



A high-level policy event at the European Parliament in Brussels organised by Cancer Patients Europe (CPE)

Patients Should be There Before the Decisions are Made

Few phrases in modern healthcare are used more frequently than putting patients at the centre.

But Cardone draws a sharp distinction between saying patients are central and giving them genuine influence.

For her, meaningful involvement means **co-design**.

"Patients should be involved from the start in designing policies, pathways, research priorities and evaluation frameworks, not only asked for feedback at the end when we do not even know how this feedback is taken into consideration."

That distinction changes everything.

Consultation asks patients to comment on something

someone else has already created.

Co-design allows them to help determine what should be created in the first place.

Cardone argues that patient advocates and organisations need recognition, formal representation and clearly defined roles.

And she goes further:

"Involvement in decision making should be mandatory and not voluntary."

Too often, she says, patient involvement remains symbolic, fragmented or concentrated around awareness campaigns rather than the decisions that determine how care is designed and delivered.

She describes some of what still happens as a **"tick-the-box exercise."**

That suggests a different test for institutions claiming meaningful patient involvement.

The question should no longer simply be:

Were patients consulted?
It should be:

What changed because patients were there?

Survival Cannot be the Only Measure of Success

For decades, survival has been one of oncology's defining measures of progress.

It remains fundamental.

But it cannot describe the whole experience of cancer.

A person may survive and still struggle with psychological consequences.

They may be unable to return to work.

They may experience financial toxicity.

They may live with long-term or late effects that change their independence and participation in society.

They may need supportive or palliative care long before the end of life.

If healthcare systems genuinely want to know whether people are living well during and after cancer, Cardone argues, they need to look beyond survival.

Cancer Patients Europe has worked across quality of life, nutrition, mental health and psychological well-being, the right to be forgotten, return to work and other aspects of survivorship.

Cardone points to initiatives in Belgium and the Netherlands that help patients and survivors return to employment during and after treatment as examples of more person-centred support.

Long-term and late effects must also be taken seriously because of their impact on social participation and autonomy.

And palliative care, she stresses, must not be treated as something reserved for the final days of life.

"Access to palliative and supportive care is crucial. Not to be considered just as end-of-life support, but throughout the treatment."

The implication is fundamental.

Saving a life and enabling someone to live that life are not the same outcome.

A truly patient-centred cancer system must be capable of doing both.

If She Could Change One Thing Tomorrow

If Cardone could change one thing in European cancer policy tomorrow, what would make the greatest difference?

Her answer is clear:

"Access to innovation."

Not innovation alone.

Access.

Because the scientific existence of a treatment means little to the person who cannot receive it.

And Cardone sees access as a continuum.

It begins with diagnostics. It extends through treatment. And it continues into survivorship.

"Access to innovation really gives hope to patients."

This may become one of the defining tests of European oncology in the coming decade.

Scientific innovation will continue.

New diagnostics will emerge. New treatments will reach regulators. Precision oncology will become increasingly sophisticated.

But the question facing healthcare systems is different:

How quickly and how equitably can those advances reach the people for whom they were created?

When asked what frustrates her most about the pace of change in cancer care, Cardone points to:

"The administrative burden that cannot keep up with the speed of innovation."

It is a revealing diagnosis of the problem.

Science is accelerating.

Cancer does not wait.

Patients cannot wait.

But systems still do.

The Day Advocacy Becomes Less Necessary

Perhaps the most striking part of Cardone's vision for the future is that success would eventually make some of her own work less necessary.

Looking ten years ahead, she imagines cancer

patients becoming active partners throughout their entire pathway—from research into new treatments through prevention, diagnosis, treatment, access and survivorship.

And how would we know that genuine patient-centred care had finally been achieved?

Because advocates would no longer have to fight so hard to secure a place for the patient voice.

"Advocacy is fundamental to speak up for the patients. We are there to cover this role. When patient centred care will be achieved, there would be no need for advocacy anymore."

Or, she adds, advocacy would have a much smaller role.

Today, reality is very different.

"We now are extremely busy, so busy. And the reason being that we're not there yet."

There is something powerful in that measure of success.

The ultimate achievement of patient advocacy is not that advocacy organisations become permanently indispensable.

It is that healthcare systems absorb the principles advocates have spent years demanding.

That patients are listened to without having to fight to be heard.

That their priorities enter decisions before those decisions are made.

That geography does not determine whether innovation reaches them.

That survivorship means more than being alive.

That access is considered part of innovation rather than an afterthought to it.

And that patient-centred care eventually becomes so embedded in healthcare that the phrase itself no longer needs constant explanation.

6th European Cancer

Impleme



What Matters Most

After years spent in cancer policy and advocacy, Cardone says she remains committed because she can see the impact of the work and improvements for cancer patients.

Asked to define good leadership in one word, she chooses:

"Empathy."

The best advice she remembers receiving:

"To be diplomatic and prudent."

What has working with cancer patients taught her about life?

"Live the present in full."

What gives her hope for the future of cancer care?

Awareness among different stakeholders of the role each can play across the cancer continuum.

What barrier would she remove tomorrow?

"Access to the right treatment."

And what does putting patients first actually mean?

"Prioritising on what matters most to the patients."

Perhaps that is also the simplest standard against which the next decade of European cancer policy should be

judged.

Europe does not lack scientific ambition.

It does not lack cancer strategies.

It does not lack data.

And increasingly, it does not lack innovation.

The unfinished task is making sure that progress reaches the person for whom all of it exists.

Because to that person, policy is not abstract.

Access is not a statistic.

A waiting list is not an administrative problem.

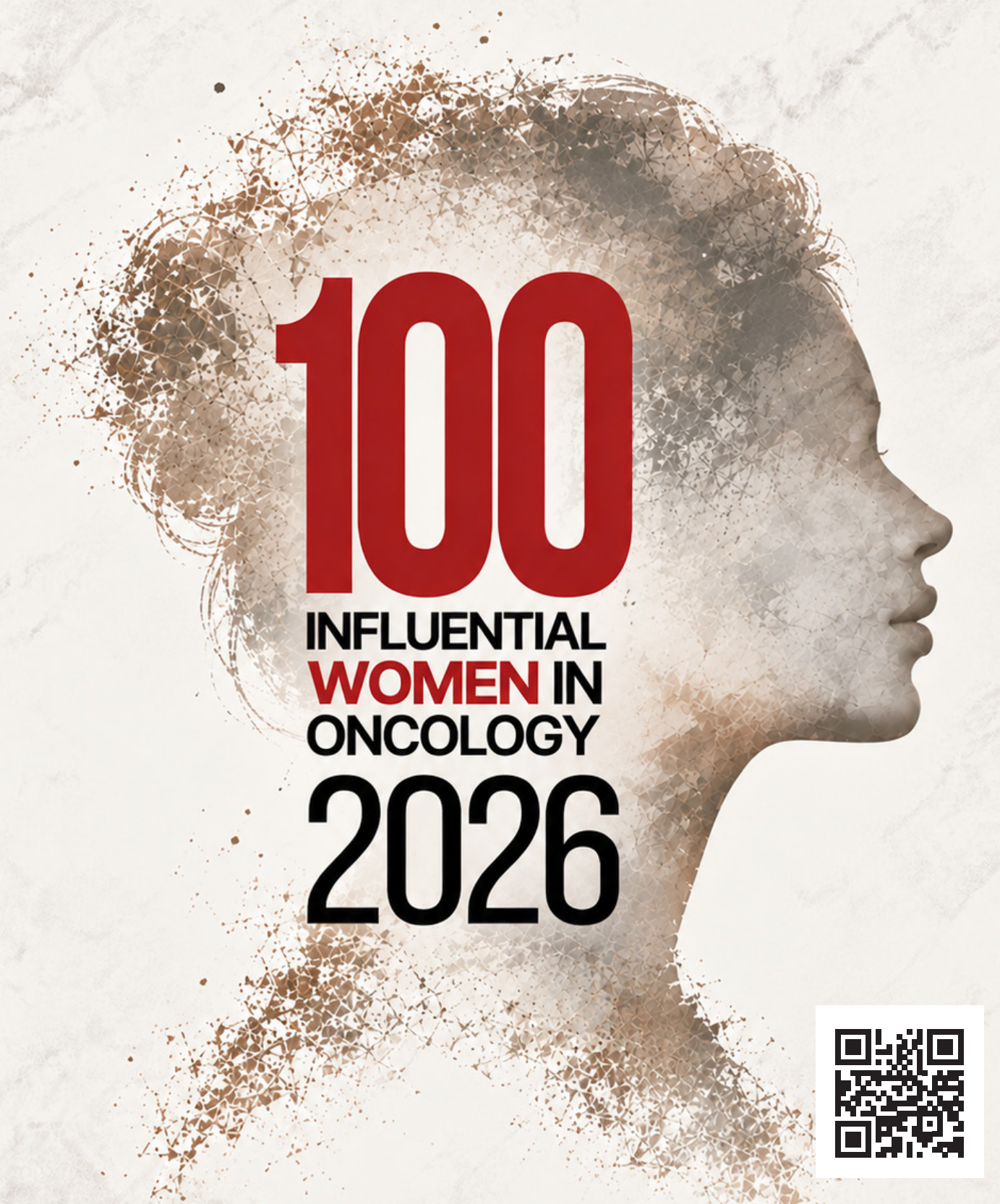
And a delay is not simply a delay.

It is part of life.

Time is of essence.

About the Author

Knarik Arakelyan, PhD, is a psychologist and communications professional with over 14 years of experience in public relations, health communication, and public awareness campaigns. She is currently the Managing Editor of "CancerWorld" magazine, Chief of Staff of OncoDaily, and serves as PR and Communications Officer at "EMERTÉ" Clinic.



100

INFLUENTIAL
WOMEN IN
ONCOLOGY

2026



YOGI

Building a European Community for Young Oncologists in GI

By Annalice Gandini



Research opportunities, mentorship and training still vary widely for young oncologists across Europe. YOGI – Young Oncologists in GI – aims to bridge those gaps by creating a community built around collaboration, education and shared opportunities.

Becoming an oncologist today means facing two different but closely connected aspects of the profession: clinical practice and research. The first one is driven by our patients and by the desire to help them. It is time-consuming, but probably also the most rewarding part of our job, offering the opportunity to build a unique relationship with each patient, different from other medical specialties. At the same time, caring for patients inevitably raises questions: how can we do better? How can we improve outcomes and quality of life? Research is the way we try to answer these questions.

At the beginning of your career, however, research often appears as a complicated world, where it is difficult to know where to start and how to move forward. One of the most important steps is finding a good mentor who can guide you in defining your future. However, this is not always straightforward and many of us have experienced these challenges firsthand. Finding the right mentor, identifying research opportunities, or simply connecting with peers from other institutions was often more difficult than it should have been. Access to international collaborations often depends on personal contacts rather than structured networks, meaning that talent is not always matched by opportunity. Moreover, research cannot be carried out alone, especially nowadays, as oncology is becoming increasingly personalized and focused on smaller and more selected groups of patients.

All these reasons clearly highlight how much we need a network, and how important it is that this network is accessible. This is the idea behind the YOGI (Young Oncologists in GI) Group.

Building the Network We Needed

The group was launched in April 2026 and brings together

eight young oncologists from six different European countries (France, Italy, Spain, Austria, Germany and Belgium), all actively involved in both clinical practice and research, with experience in international collaborations. One of the main reasons behind this initiative is that the experience of being a young oncologist still differs considerably across Europe. Training pathways, research opportunities, protected academic time, and access to clinical trials vary substantially between countries. These differences should not be viewed as barriers, but rather as an opportunity to learn from one another. Sharing successful initiatives, discussing common challenges, and building collaborations across borders can ultimately improve both training and patient care throughout Europe.

The aims of the group are:

- To share research projects conducted and presented at international congresses by young oncologists in GI cancers, in order to encourage participation in academic collaborations and increase the visibility of young researchers.
- To create a community where young oncologists can openly share thoughts, fears and doubts with colleagues who have experienced, or are experiencing, the same challenges.
- To facilitate connections among different European countries, promoting research collaborations as well as fellowship and mentorship opportunities.
- To develop educational content through online videos, podcasts, journal clubs, onsite meetings and other initiatives, providing accessible educational material and opportunities for discussion.

Preparing for the Oncology of Tomorrow

These initiatives are designed to address today's

needs while also preparing young oncologists for tomorrow's challenges. As gastrointestinal oncology continues to evolve, building international connections and sharing knowledge will become increasingly important. Precision medicine is redefining disease classification, therapeutic options are expanding, circulating biomarkers are reshaping diagnosis and surveillance, and artificial intelligence is rapidly entering both clinical practice and research. At the same time, patients are becoming increasingly informed and actively involved in treatment decisions, making communication and shared decision-making essential skills alongside scientific expertise.

Keeping up with this evolution is a challenge for every oncologist, but it also represents an extraordinary opportunity for the next generation. The complexity of modern oncology requires multidisciplinary teams, international collaborations, and the ability to connect researchers with complementary expertise.

"Building these connections early in one's career is therefore an investment not only in individual professional growth, but also in the future of gastrointestinal cancer research."

Creating Opportunity, Reducing Isolation

Despite these opportunities, important challenges remain. Young oncologists often struggle to balance demanding clinical responsibilities with research activities, frequently with limited protected academic time. At the same time, the expectations placed on early-career oncologists continue to grow. Beyond clinical excellence, they are expected to publish, secure research funding, present at international meetings, develop leadership skills, and continuously keep up to date. While these expectations reflect the dynamic nature of modern oncology, they also highlight the importance of creating environments where young professionals feel supported rather than isolated.

"Networks such as YOGI cannot solve all these challenges, but they can help reduce some of the barriers by facilitating mentorship, encouraging collaboration, and creating opportunities that

might otherwise remain inaccessible."

From Ideas to Better Patient Care

We hope it will become a community where ideas evolve into collaborations, collaborations into research projects, and research projects into improvements in patient care.

However, the future of YOGI will largely depend on the feedback we receive from the community, the interest it generates, and, above all, the active participation of young oncologists across Europe. We want YOGI to grow according to the real needs of early-career GI oncologists, adapting over time to the ideas and suggestions of the community itself.

"The future of gastrointestinal oncology will not be shaped by individual institutions or individual researchers alone, but by communities that are willing to learn from one another and work together, always keeping the improvement of patient care as the final goal."

Meet YOGI in Paris

We look forward to meeting many of you at the **Paris Colon Cancer Congress**, taking place in Paris on **10–12 December**, where YOGI will continue to grow through discussion, new collaborations and the active participation of young colleagues from across Europe.

The scientific programme and application details are available on the **OncoDaily website**, in the **Events by OncoDaily** directory. We encourage all interested young GI oncologists to apply, join the conversation and help shape the future of this growing community.

About the Author

Annalice Gandini is medical oncologist specialising in GI cancers, PhD student and researcher at Centre de Recherche des Cordeliers/Université Paris Cité and European Hospital Georges Pompidou (Paris, France), YOGI EU Lead.

December, 2026

Paris, France

SHAPING THE FUTURE OF
COLORECTAL CANCER CARE

P3C

Paris Colon
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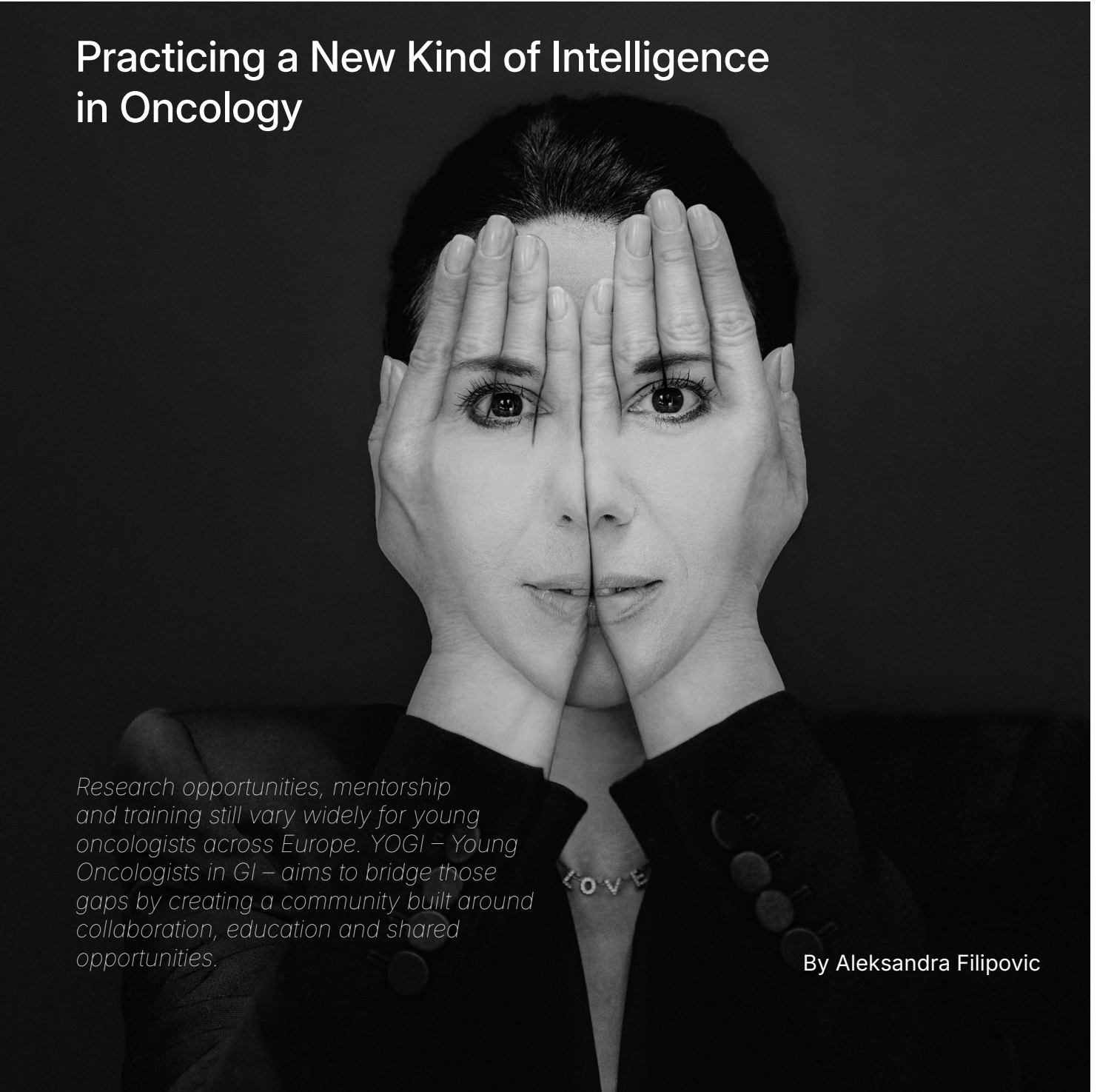
Scientific Co-Chair
Javier Ros
Spain

Two Nervous Systems **ONE ROOM**

Practicing a New Kind of Intelligence
in Oncology

Research opportunities, mentorship and training still vary widely for young oncologists across Europe. YOGI – Young Oncologists in GI – aims to bridge those gaps by creating a community built around collaboration, education and shared opportunities.

By Aleksandra Filipovic



Over the past year, I have found myself returning to one question with increasing insistence: when a patient walks through the door of an oncology clinic, who, exactly, has walked in?

The obvious answer is a person with cancer. We have become extraordinarily sophisticated at describing the cancer they bring with them. We know its anatomical location and histology, increasingly its genomic architecture, its molecular dependencies and its relationship with its microenvironment. We know how to stage it, sequence it, image it and interrogate it. Precision oncology has given us an unprecedented ability to look deeply into the disease.

And yet, somewhere in our increasingly precise description of the tumour, I wonder whether our definition of the person has become strangely imprecise.

This was the question running through two talks I gave recently, first in Bucharest, under the title *Mind the Gap – Mind the Body*, and subsequently at Cleveland Clinic Abu Dhabi, where I called for *Practicing a New Kind of Intelligence in Oncology*. The second talk was not so much a different argument as the next chapter of the first. Bucharest asked us to notice the gap. Cleveland asked what we might do once we saw it.

Both began from a conviction that has become central to how I understand medicine: ***somewhere between a blood test and a scan, there is a whole person.***

The Gap in Personalised Medicine

Cancer has moved through a succession of explanatory models. We have understood it as an anatomical disease: find it, cut it out, irradiate it, shrink it. We have understood it as a genetic disease and searched for its Achilles heel in mutations and molecular dependencies. We have understood the influence of environment, exposures and behaviour. None of these stories is wrong. Each has transformed oncology.

The problem arises when a part of the truth is mistaken for the whole truth.

The traditional model remains predominantly symptom- and disease-focused. Integrative care proposes something different: not an abandonment of conventional treatment, but a **both/and approach** that seeks to optimize health, quality of life and clinical outcomes while returning agency to the person before, during and after

treatment.

This distinction matters because cancer does not occur in an isolated organ. As one of my Cleveland slides simply said, cancer touches everything.

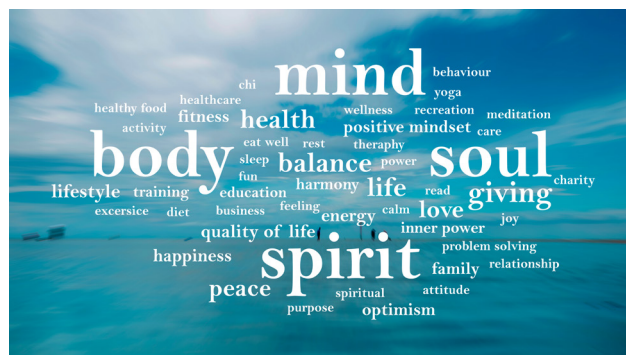
The patient who arrives in front of us has a tumour, but they also have a life. And that life has had a biology of its own.

This leads me to what I believe are two of the most overlooked pieces of clinical information in an oncology consultation:

Every patient walks into our office with their story and their nervous system. Both live in the body.

The story shaped the nervous system. The nervous system has participated in shaping the Biology in which the disease now exists. And then the diagnosis itself becomes a new and powerful event in that system.

This is where the conversation about cancer needs to become larger without becoming less scientific.



What is a Diagnosis?

A diagnosis of cancer—or indeed of any serious disease—is not simply the transmission of medical information. For many people it is an event of enormous emotional and physiological consequence. In the framework I presented, trauma is not limited to the conventional image of a catastrophic event; it can be understood as a biochemical, physiological, behavioural and emotional imprint left by an event or series of events on the nervous system, physiology and emotional state. Trauma can also become a barrier to seeking, receiving and responding to healthcare.

And the story did not necessarily begin with cancer.

The Bucharest presentation deliberately moved

backwards through a person's life: adverse childhood experiences and what lies beyond conventional ACE definitions; instability and lack of safety; parental loss or abandonment; family illness; addiction; verbal, physical or sexual abuse; bullying; not feeling seen, loved or accepted; serious accidents; community violence; medical trauma; natural disasters and war.

These are not merely biographical footnotes. Large epidemiological literatures associate cumulative adversity with later health-harming behaviours and increased burdens of physical and mental ill health.

I am not suggesting that trauma "causes cancer." Such reductionism would simply replace one incomplete story with another. I am suggesting that the history of a human organism matters.

A patient does not leave their biography in the waiting room.

Their story enters the clinic in their body.

From Story to Physiology

The next part of the Bucharest talk deliberately travelled from biography towards biology: from stress and trauma to neurobiological substrates of chronic disease; from nervous-system state to inflammation; from unresolved inflammatory processes to the growing scientific interest in the relationship between neural signalling and cancer. Cancer neuroscience is now a serious field of scientific inquiry. Tumours can be innervated, autonomic nervous-system signalling can interact with tumour biology, and neural inputs have been studied in relation to processes including angiogenesis and immunosuppression within the tumour microenvironment.

The important point is not to leap from those observations to the unsupported conclusion that regulating one's nervous system will control a tumour. It is to recognise that the conceptual wall we constructed between "mind" and "body" was never biologically convincing in the first place.

The body does not recognise the disciplinary boundaries of medicine.

This is why I deliberately write **MINDBODY as one word**.

The Bucharest talk also examined emerging clinical

evidence linking emotional distress with cancer outcomes and studies in which multidimensional lifestyle interventions have been evaluated alongside conventional cancer treatment. These data require careful interpretation; association is not causation, and complex interventions do not allow us to attribute an outcome to a single component. But collectively they justify something important and much less controversial: taking the internal state and lived experience of our patients seriously is not an indulgence outside "real oncology."

It belongs within our scientific curiosity.

The Diagnosis Acquires a Neurotag

Cleveland took this argument somewhere more practical.

Neurosomatic intelligence, as I use the term, is the ability to recognise how sensory and cognitive inputs affect the nervous system and, where appropriate, intentionally change those inputs to facilitate greater regulation, adaptive behaviour and healing. Its starting point is simple: the nervous system is fundamentally organised around safety and survival.

It is continuously receiving inputs—from vision, hearing, touch, smell, taste, movement, internal sensations, thoughts and information—processing them, making decisions and producing outputs.

Experiences become associated with patterns of neural activation. In the language of the framework I teach, these can be thought of as **neurotags**. Pain has a neurotag. Fear has one. Memories, movements and emotions are embedded within patterns of activation and association. When sufficient sensory, emotional or contextual inputs accumulate, a familiar pattern can fire and produce an output; over time, some of these loops may become maladaptive.

And a diagnosis can acquire a neurotag quality too.

Think about what that means clinically.

A patient may no longer be responding only to the cancer that exists today. Their body may also be responding to the room in which they first heard the diagnosis, the smell associated with chemotherapy, the scan that previously brought bad news, the phrase a doctor once used, the sight of a hospital corridor, the week before a

surveillance appointment.

The body learns.

And sometimes loops do not close.



And then, there was Word

There is another input that medicine uses continuously and sometimes rather casually: language.

The Greek onkos, from which oncology derives, means burden or weight. I find that origin striking because words themselves can carry extraordinary weight.

"Cancer" is not received by a patient as a neutral biomedical noun. Neither are "progression," "failure," "incurable," "palliative" or "nothing more we can do." Medical language carries biological information, certainly, but also emotional, autobiographical and cultural meaning. I have come to think of words as **bio-symbols**: symbols interpreted not only intellectually but within the embodied context of the person hearing them. This is not an invitation to euphemise reality. Truth matters enormously in oncology.

But truth does not require carelessness.

How we frame diagnosis, prognosis and treatment can amplify threat or create clarity, agency and hope. The content of a sentence may be medically identical while its physiological and relational impact is entirely different. Our words are therefore not merely descriptions of the clinical encounter.

They are part of the clinical encounter.

The One Least Uncertain

This brings us to authority.

When someone is diagnosed with cancer, certainty suddenly collapses. Their imagined future, assumptions about their body and often their sense of control are destabilised. Into that uncertainty walks the oncologist.

We may become, as I described it in Cleveland, **"the one least uncertain."**

Not all-knowing. Not infallible. Simply less uncertain than the frightened person opposite us.

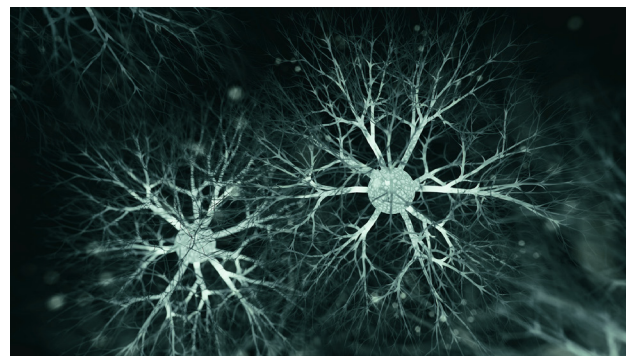
That position carries enormous relational power.

Patients bring their previous relationships with authority into medicine. Some hand their agency to us readily. Others distrust authority. Some are highly sensitive to facial expression, posture or tone. The task is therefore not simply to communicate information accurately, but to create sufficient relational safety for the person to remain present and retain agency while receiving it.

The model I presented uses four deceptively simple words: **presence, attunement, resonance and trust.** Adaptive presence asks the clinician to notice the person in front of them and modulate posture, tone and delivery accordingly.

And it is at precisely this point that the argument has to turn around.

Because the patient is not the only nervous system in the room.



Two Nervous Systems, One Room

This may be the slide in the Cleveland presentation that matters most to me now.

On one side:

I didn't sleep last night.

What is the scan going to show?

Will I get side effects?

What will I tell my kids?

Will I offend him if I ask for a second opinion?

On the other:

Traffic was horrible.

The waiting room is overflowing.

The clinic is running behind.

Fifty unanswered emails.

Five deadlines.

That colleague...

And then these two people meet.

Two nervous systems. One room.

We speak frequently about the emotional state of patients. We speak less about the state of the clinician who is about to encounter them.

Yet the clinician's nervous system is not left outside the consulting-room door while their expertise walks in.

Who am I when I enter that room?

Am I present or rushing? Curious or already deciding? Regulated or activated? Am I capable of tolerating the patient's fear without needing to make it disappear? Can I sit with uncertainty? Can I hear anger without immediately becoming defensive? Can I allow silence, or does silence make me uncomfortable?

One of my Cleveland slides asks simply: **Who are you when you are regulated?**

Engaged. Curious. Energetic. Emotionally stable. Mentally clear. Resilient. Centred. Grounded.

These are not merely desirable wellness outcomes for

doctors.

They are clinical capacities.

And this is why I increasingly believe that doing our own inner work is part of our professional responsibility.

The patient should not have to manage our discomfort.

They should not have to reassure us because their suffering has overwhelmed us. They should not have to soften their questions because we become defensive. They should not have to carry our urgency, exhaustion or fear in addition to their own.

It is our duty to hold the patient. It is not the patient's duty to hold us.

That does not demand perfection from clinicians. It demands awareness.

Doctors are human. We become tired. We are frightened. We grieve. We become frustrated. We carry patients home in our minds. Sometimes we make mistakes. Sometimes a patient dies and we open another door ten minutes later.

The point of regulation is not to become less human.

It is to become human enough to know what belongs to us before we unconsciously ask somebody else to carry it.

The body is not a thing. The body is a process.

Once nervous-system state becomes visible, we can begin to work with it.

The Cleveland talk moved through fight, flight and freeze states and practical ways of responding to them: orientation to the room; grounding through the feet; pushing against a wall; movement and shaking; releasing the jaw; vocal or prolonged exhalation; hand-to-heart and hand-to-belly; simple vagal practices; bilateral movement; tapping; opening the chest; naming one's full name and the date; and the deceptively powerful reminder, **"That was then. This is now."**

These are not intended as substitutes for psychological or psychiatric treatment, nor do I propose turning oncology consultations into hour-long somatic therapy sessions.

The point is far more practical.

A clinician can learn to recognise when the human being opposite them is mobilised, trying to escape, or shutting

down. And sometimes a two-to-five-minute intervention can help that person become sufficiently present to hear the information we are about to give them.

The same is true for us.
Before opening the next door, feel your feet.

Orient to the room.

Notice your breathing.

Exhale.

Ask yourself what state you are carrying into the encounter.

That may take thirty seconds.

But thirty seconds of awareness can change what happens next.

This is the premise behind the **neurosomatic-centred micropractices for the clinic** with which I concluded the Cleveland talk. The slide was headed by a sentence that captures the philosophy better than almost anything else I could write:

The body is not a thing. The body is a process.

If the body is a process, then regulation is a process. Healing is a process. The doctor–patient relationship is a process.

And the process changes both participants.

For patients, a nervous-system-informed encounter may increase the sense of being seen, heard and understood and may reduce anxiety and treatment-related distress. For oncologists, the proposed benefits include emotional resilience, communication, presence, meaning and potentially protection against compassion fatigue and burnout. At a systems level, the aspiration extends to staff retention, absenteeism and team culture.

In other words, this is not something else we do **to** patients.

It is something we learn to practise with them.

Healing as Rewiring

Both talks eventually arrived at the possibility of change.

In Bucharest, I described healing as a movement from

a biology organised around trauma and threat towards one increasingly capable of experiencing safety. The slide deliberately used provocative language: diagnosis is an assignment written by your body. The diagnosis may be shared by thousands of people, but the story in which it arose is unique. That, for me, is where holistic care enters personalised medicine—not by replacing oncology, but by bringing the whole person back into it.

The next slide called this **“when healing becomes a lifestyle—a complete rewiring.”** It described the physiological systems potentially touched by sustained changes in behaviour, stress regulation and lifestyle—from cortisol and inflammation to autonomic balance, cardiovascular function and brain integration.

Cleveland developed the same idea differently: rewiring produces new physiology, and old symptoms and patterns may no longer belong to the new system.

Again, this needs to be said carefully in oncology. We must never burden patients with the idea that they created their cancer through insufficient regulation, nor promise that nervous-system work will cure it.

But neither should fear of overstatement prevent us from asking how an organism changes when its inputs change.

That is a scientific question.

And an intensely human one.

What would it take?

The penultimate questions in both talks were not philosophical. They were practical.

If this matters, how do we bring it into healthcare?

The Bucharest talk proposed trauma-informed clinician competency and medical procedures, organisational readiness, cross-sector collaboration and coordinated referral, alongside stronger research and advocacy for root-cause and body-intelligence-led interventions.

Cleveland evolved this into nervous-system-informed clinician competency, NSI-informed medical procedures, staff and organisational readiness, and cross-sector collaboration. But I added one final line:

If the only takeaway from today is your awareness that this matters—that is already more than enough.

I still believe that.

Not every oncologist has to practise as I do. Not everyone will choose to dedicate their clinical work to integrative oncology and a person-first approach.

Nor should they have to.

But all of us can become more aware of the nervous systems we meet.

All of us can take two minutes.

All of us can ask one different question.

All of us can become more intentional about language.

All of us can notice when a patient is no longer able to receive information.

All of us can learn what happens in our own body when somebody cries, becomes angry, asks a question we cannot answer or receives news neither of us wanted.

All of us can look away from the computer for a moment and really see who has walked through the door.

That is not an additional speciality.

That is doctoring.

Treatment is Not Medicine

And perhaps this is where the two talks have taken me since I gave them.

I have begun to wonder whether one of the most consequential things modern healthcare has done is to quietly make **treatment** and **medicine** synonymous.

They are not.

Treatment is chemotherapy, surgery, radiotherapy, immunotherapy, a transplant, a drug, an intervention. Treatment is something medicine has become extraordinarily good at delivering.

But medicine is older than treatment.

Medicine existed before hospitals. Before scanners. Before drugs. Before we had names for most diseases.

We have somehow sequestered medicine inside buildings and professions, as though it belongs to hospitals and clinics and is dispensed by people with licences.

Yet medicine also lives within the human organism—in its capacity to regulate, adapt, repair, reorganise and seek equilibrium.

And medicine lives **between** human beings.

Sometimes medicine is the drug I prescribe.

Sometimes medicine is the way I tell you that the scan has changed.

Sometimes it is the question I ask before I prescribe anything.

Sometimes it is helping you remain inside your body while I tell you something frightening.

Sometimes it is silence.

Sometimes it is the moment in which you realise that I am not frightened of your fear.

Treatment is something we do. Medicine is also something that happens between us.

That does not diminish the importance of treatment.

It restores the meaning of medicine.

Rachel Naomi Remen's words appeared in both presentations: "We thought we could cure everything, but we can only cure a small amount of human suffering. It turns out, the rest needs healing." The talks then offered several ways the literature has described healing: making whole again, transformational change, transcending suffering, regaining balance and peace.

Perhaps the distinction matters particularly in oncology because sometimes we can cure.

Sometimes we cannot.

But there is never a moment at which we cannot practise medicine.

If You Ask Me **My Name**

There is one final nervous system in this story.

The doctor's.

I ended Cleveland with Richard Berlin, MD's poem **"If You Ask Me My Name."**

It is a small poem carrying an enormous amount of weight. Berlin moves through the many selves contained within the word doctor: healer and priest, arrogance and fear, distance and exhaustion, proximity to death, responsibility for children, the strange shifting roles of mother, father, hero and fool. Then all of those identities collapse back into the simplest possible name: doctor.

I chose it because conversations about clinician regulation can too easily become another demand placed upon doctors: be more present, more empathic, more regulated, more resilient, more available.

That is not what I mean.

We should also acknowledge what a doctor holds.

The responsibility is real.

The weight is real.

The gravitas is real.

To sit opposite another human being and tell them what you believe is happening inside their body is an extraordinary privilege. To recommend something that may save their life and may also harm them is an extraordinary responsibility. To accompany people through fear, pain, hope, recovery, recurrence and sometimes death changes us too.

We should not trivialise that in our efforts to improve medicine.

We should honour it.

Which is why the question I want to leave with my colleagues is not another clinical question.

It is this:

What does doctoring mean to you?

Not what did it mean when you wrote your medical-

school application.

What does it mean now?

After the training, the night shifts, the exams, the guidelines, the MDTs and tumour boards. After the patients who recovered and the patients whose names you still remember because they didn't. After the times medicine worked exactly as you hoped and the times it did not.

What are we actually doing when somebody walks through our door and entrusts us with their body, their story and, for a period of time, part of their future?

Perhaps we begin by remembering that there are two nervous systems in that room.

The patient's nervous system arrives carrying a story.

The clinician's nervous system arrives carrying one too.

Our responsibility is not to erase either story. It is to become sufficiently aware of our own that, for the time we are together, the patient does not have to carry it.

Then we met.

Human to human.

And somewhere in that meeting there will be science, expertise, evidence, scans, pathology, molecular biology, decisions and treatment.

But there may also be something else.

Connection.

And perhaps that is not the soft part of medicine.

Perhaps that is medicine.

About the **Author**

Aleksandra Filipović, MD, PhD, is a medical oncologist, cancer cell biology scientist, drug developer, and educator. She earned her PhD at Imperial College London and now serves as Head of Oncology and Chief Medical Officer within the biotech sector. Dr Filipović practices and teaches integrative oncology internationally and hosts the OncoDaily TV podcast "Into the Body, with Dr Aleks".

Beyond the Final Score

What the Winners Cup Means to Young People With Cancer

For more than 200 young people with cancer from across Europe, a football tournament in Milan offered something that cancer can make difficult to find: a chance to be with friends, feel understood and enjoy being young.

By Marine Marachlian



At the end of a football tournament, someone usually remembers the score. Who won, who missed a penalty, who scored the winning goal. At the Winners Cup, those things matter too. The players are competitive, and nobody arrives hoping to lose.

But ask what stays with them afterwards, and the answers can be very different.

For Matteo Davide, it was not the number of goals scored or conceded. It was the friends, the shared experiences, and the people who were no longer there.

On October 9 and 10, more than 200 young people aged 15 to 21 gathered in Cornaredo, near Milan, for the seventh edition of the Winners Cup. Sixteen teams from oncology centres across Italy and Europe took part in the seven-a-side football tournament. All the players were undergoing cancer treatment or follow-up care.

Some had spent months in hospital. Others were learning to return to everyday life after treatment. They came from different countries and spoke different languages, but they shared experiences that many people their age would struggle to understand.

For two days, they also shared a football field.

A Place Where **Cancer** Needs No Explanation

There is no convenient age to have cancer, but adolescence brings particular difficulties.

At 15 or 16, life is supposed to be opening up. Friendships become more important, independence begins to take shape, and plans for the future start to feel real. A cancer diagnosis can interrupt all of that.

School is replaced by hospital appointments. Friends continue with their lives while treatment determines where a young person can go and what they can do. Even after treatment ends, returning to school or social life may not be as easy as everyone hopes.

And there are questions that can be difficult to share with friends who have never experienced cancer. Questions about scars, changes in appearance, the possibility of relapse, or simply how to feel comfortable in a body that has been through so much.

At the Winners Cup, many of those explanations are unnecessary.

The young people recognize something of their own experiences in one another. Professor Andrea Ferrari, a paediatric oncologist who has worked for years to improve care for adolescents and young adults with cancer and who conceived the Winners Cup,, has described how they recognize one another through their scars and a particular light in their eyes.

Here, cancer is part of what brings them together, but it does not have to dominate every conversation.

There is football, of course. There are also the moments between matches, the evening celebrations, conversations and friendships that may continue long after everyone has returned home.

And there is the pleasure of being part of a team, of wanting to win a match for no other reason than that winning feels good.

This year, Real Camalli, representing Genoa, took home the trophy after defeating the Spanish team Seleccion Bar Spagna in the final.

It was a victory worth celebrating. But the meaning of the Winners Cup goes far beyond the final score. **Matteo Davide**, a former participant who has since passed away, captured this in a moving reflection written after one of the tournament's earlier editions:

"It doesn't matter how many goals you take or how many you score, the standings, sore feet and sunburned faces.

All the friends were there.

There were those who went through adventures similar to mine.

There were those who shared them.

There were those who committed themselves to the lives of others.

And those who are no longer here were even more here than before.

For me, having been there already means having won everything."

His words hold both the happiness of being together and the sadness that can accompany it.

For young people who have experienced cancer, friendship sometimes comes with an awareness of loss.

They may have met others during treatment, shared difficult months with them, and watched some return to ordinary life while others did not.

The friends who were absent were still part of the gathering in Matteo Davide's memory.

It is a reminder that survivorship is not always a simple story of illness followed by recovery. There can be gratitude, grief and uncertainty, sometimes all at once.

And there can still be room for football.

The Day **Former Patients** Beat Their Doctors

Among the matches played during this year's Winners Cup was a competition that brought together three groups who usually meet under very different circumstances.

One team was made up of doctors representing the Italian Association of Medical Oncology (AIOM) and the Italian Association of Paediatric Haematology and Oncology (AIEOP). Another represented parents and families through FIAGOP, the Italian federation of associations supporting families affected by childhood cancer. The third team was made up of former Winners Cup participants who had grown older than the tournament's age limit of 21. These were young people who had previously come to the competition as patients and had now returned to play again.

The final brought the doctors and former patients onto the same field. After a penalty shootout, the former patients won. There is a certain satisfaction in that result.

Inside a hospital, the roles are usually clear. Doctors explain diagnoses, recommend treatments and make clinical decisions. Patients ask questions, undergo procedures and live with the consequences of those decisions. Parents spend much of their time trying to understand what comes next.

On a football field, those roles become less important. A doctor can miss a penalty. A former patient can score the winning goal. A parent can join the competition rather than watch anxiously from the sidelines. The relationships remain, but the setting changes.

For the former players, returning to the Winners Cup carried another meaning. They were no longer eligible to compete in the main tournament, yet they still wanted to be there.

The connection they had found through the event had lasted beyond their years as participants.

That continuity is particularly important in adolescent and young adult cancer care, where support is often needed long after active treatment has ended.



The Age Group That Cancer Care Has Struggled to Serve

The Winners Cup is a football tournament, but it also draws attention to a question that oncology has not fully resolved: where do adolescents and young adults belong in cancer care?

They are often caught between services designed for children and those developed for adults.

A 16-year-old undergoing chemotherapy may have medical needs similar to those of a younger child, but their concerns about independence, education, fertility and relationships may be quite different. A patient in their early twenties may receive treatment in an adult oncology department without having access to support designed for someone at the beginning of adult life.

Professor Ferrari has long described this population as occupying the "middle ground" between paediatric and adult oncology.

The distinction is not simply about age. It can influence where patients receive treatment, whether they have access to specialised centres and clinical trials, and what psychological and social support is available to them.

In Italy, AIOM and AIEOP established a joint working group five years ago to address some of these gaps.

The two scientific societies have been working towards

a more coordinated approach to adolescent and young adult oncology, promoting research pathways and seeking to define a model of care based on stronger links between paediatric and adult services, but also on the definition of minimal essential requirements that define age-specific standards of care, such as the need for access to fertility preservation, genetic counselling, age-specific psychosocial support, a hospital environment, and long-term follow-up.

One of their objectives is to establish a nationally recognised programme for adolescents and young adults within Italy's National Oncology Plan.

It is an ambitious undertaking, and one that goes well beyond organising a sporting event.

But the Winners Cup gives these discussions a human face.

It is easy to speak about quality of life, psychosocial needs and long-term survivorship in medical conferences. It is quite another thing to see what those ideas mean for a young person who wants to spend a weekend with friends and play football.

The tournament also brings together many of the people involved in making better care possible: patients, families, doctors, scientific societies and community organisations.

Organised by **FC Internazionale Milano** alongside CSI Milano, FIAGOP, AIEOP and the Networks of Expertise on Adolescents and Young Adults with Cancer, with support from Fondazione Bianca Garavaglia and Regione Lombardia, the event has grown into a meeting place for both young people and the wider cancer community.

Its connection with European cancer networks reflects a broader effort to improve specialist care and reduce inequalities for adolescents and young adults across countries.

These are complicated challenges, involving healthcare systems, professional collaboration and public policy.

For the young players, however, their immediate value may be much simpler: having somewhere to belong.

What Remains When the Football Ends

By Saturday evening, the matches were over.

Real Camalli had won the Winners Cup. The former

patients had beaten the doctors. The players had spent two days competing, meeting people and sharing an experience that few other sporting events could offer.

Then came the journey home.

Some would return to treatment. Others would go back to follow-up appointments, school, university or work. Some would still be finding their way through the uncertainty that can remain after cancer.

A weekend of football cannot remove those difficulties.

But it can offer something that is easily overlooked when so much attention is understandably focused on treating the disease.

Young people need more than medical appointments and good test results. They need friendships, opportunities to take part in ordinary activities and places where their experiences are understood without becoming their entire identity.

Not every young person will find that through sport. For some, it may come through music, education, art or simply spending time with others who have been through something similar.

At the Winners Cup, football creates that opportunity.

Matteo Davide's words return to the people rather than the results. He remembers those who shared his experience, those who helped others through it, and those who could no longer join them.

His reflection does not pretend that everything is easy after cancer. Nor does it need to.

It makes room for the joy of being there, and for the people who are missed.

The football has finished, and the trophy has gone home with Genoa. But the friendships will not necessarily end with the tournament.

For Matteo Davide, being there had already meant winning everything.

About the Author

Marine Marachlian, MD is an oncology resident and Medical Content Writer and Editor at "OncoDaily", passionate about cancer research and evidence-based medicine.



When **Healthcare** Providers Face Fear

By Adrian Pogacian

The loss of meaning in oncology and why hope may be the last standing lighthouse

Oncology asks healthcare professionals to work every day at the intersection of science, uncertainty and human suffering. The line between professional responsibility and personal involvement can easily blur, turning clinical work into something more than an occupation – for many, it becomes an existential commitment.

A major structural tension in contemporary medicine stems from the imbalance between the biological and human dimensions of care. Scientific advances have optimised diagnosis, treatment and survival; in oncology, precision medicine, molecular imaging and biotechnological therapies have significantly redefined the prognosis for numerous types of cancer. However, the acceleration of technological innovation has been accompanied by a reorganisation of clinical practice that prioritises disease control, measurable performance and economic efficiency – sometimes at the expense of the therapeutic relationship, ethical reflection and the patient's subjective experience (Rodin et al., 2025).

The oncology team is diverse, and the degree of exposure to patients' direct suffering varies according to each individual's role. Social workers and psychologists are among the professionals most deeply involved in the relational aspects of care. They manage not only psychological symptoms but also the social impact of the disease – including financial difficulties, administrative matters, coordination with public institutions or insurance companies,

and support for families in reorganising their daily lives. The complexity of these tasks intensifies the emotional and cognitive demands placed upon them.

This intense involvement raises the question of how to support professionals when their emotional resources become depleted. While for patients uncertainty may focus on the risk of recurrence or progression, for professionals it can take the form of concerns about continuity of care and the consequences of their own withdrawal from the therapeutic relationship.

When **Caring** Begins to Take its Toll

After long periods of empathic engagement, compassion fatigue and emotional exhaustion are frequently described. These may be associated with decreased hope, a reduced ability to experience pleasure, persistent stress and anxiety, insomnia or nightmares, negativism and cynicism, low productivity, difficulty concentrating, and feelings of incompetence or self-doubt – all of which can fuel the intention to leave the profession.

Uncertainty is not only about medical developments. It also includes administrative pressures, systemic barriers and organisational demands: strict deadlines, extensive electronic documentation and staff shortages, all of which can amplify the emotional burden of care.

The central challenge is not to eliminate uncertainty, but to transform it from a burden carried by individuals into a reality that is recognised and collectively managed. In this sense, burnout in oncology must be understood as a shared responsibility, and the duty of care must extend not only to patients but also to the professionals who provide that care.

Care Cannot Depend on Unlimited Sacrifice

In a healthcare system increasingly influenced by digitalisation and artificial intelligence, altruistic motivation alone is not enough to maintain professional balance. Psychological flexibility becomes essential in regulating emotional expression, as many professionals tend to suppress their vulnerability in order to meet institutional expectations. At the same time, psychosocial distress is often interpreted as an integral part of meaningful professional engagement, accepted as the price paid for one's vocation.

Empathy and compassion remain necessary conditions for quality care, but they must be supported by creativity, adaptability and healthy boundaries between professional and private life. Suspending empathy is not a solution, but unlimited sacrifice is not sustainable either.

At an institutional and global level, the World Health Organization acknowledges the intensification of *"levels of anxiety, stress, fatigue, burnout, stigma, and exposure to physical and psychological violence"* among healthcare professionals, highlighting the deterioration of psycho-emotional well-being in high-pressure contexts. The lack of strategic and sustainable investment in staff well-being places additional strain on an already vulnerable system characterised by insufficient financial and human resources (Rosa et al., 2022).

Restoring Meaning to Oncology Care

In oncology, when the sense of professional purpose is undermined, the motivations that sustain the work – despite its rewarding nature and importance – become more vulnerable to erosion, creating a risk of losing highly qualified professionals.

To adequately meet patients' needs while protecting healthcare professionals, oncology care systems must be reconfigured to prioritise the whole person rather than focusing exclusively on the pathology. This means integrating relational and ethical dimensions into professional training, research funding, quality assessment and service organisation.

The human crisis in oncology care reflects shortcomings in institutional organisation, resource allocation and systemic accountability, rather than a lack of compassion at the individual level. Addressing these deficiencies requires a collective commitment to the values underpinning the practice of care.

And perhaps this is where hope matters most. Not as an expectation that healthcare professionals should simply endure more, nor as another demand for individual resilience, but as a reason to preserve meaning in the work itself. In a field defined by uncertainty, suffering and extraordinary scientific progress, hope can remain a point of orientation – a lighthouse not only for patients, but also for those who care for them.

Bibliography

- GARY, et al., The human crisis in cancer: a Lancet Oncology Commission, The Lancet Oncology, 26, 12, 2025, p. e628–e670. [https://doi.org/10.1016/S1470-2045\(25\)00530-3](https://doi.org/10.1016/S1470-2045(25)00530-3)
- ROSA, W. E., ROBERTS, K. E., SCHLAK, A. E., APPLEBAUM, A. J., BREITBART, W. S., KANTOFF, E. H., PESSIN, H., & LICHTENTHAL, W. G., The critical need for a meaning-centered team-level intervention to address healthcare provider distress now, International Journal of Environmental Research and Public Health, 19, 2022, 7801. <https://doi.org/10.3390/ijerph19137801>

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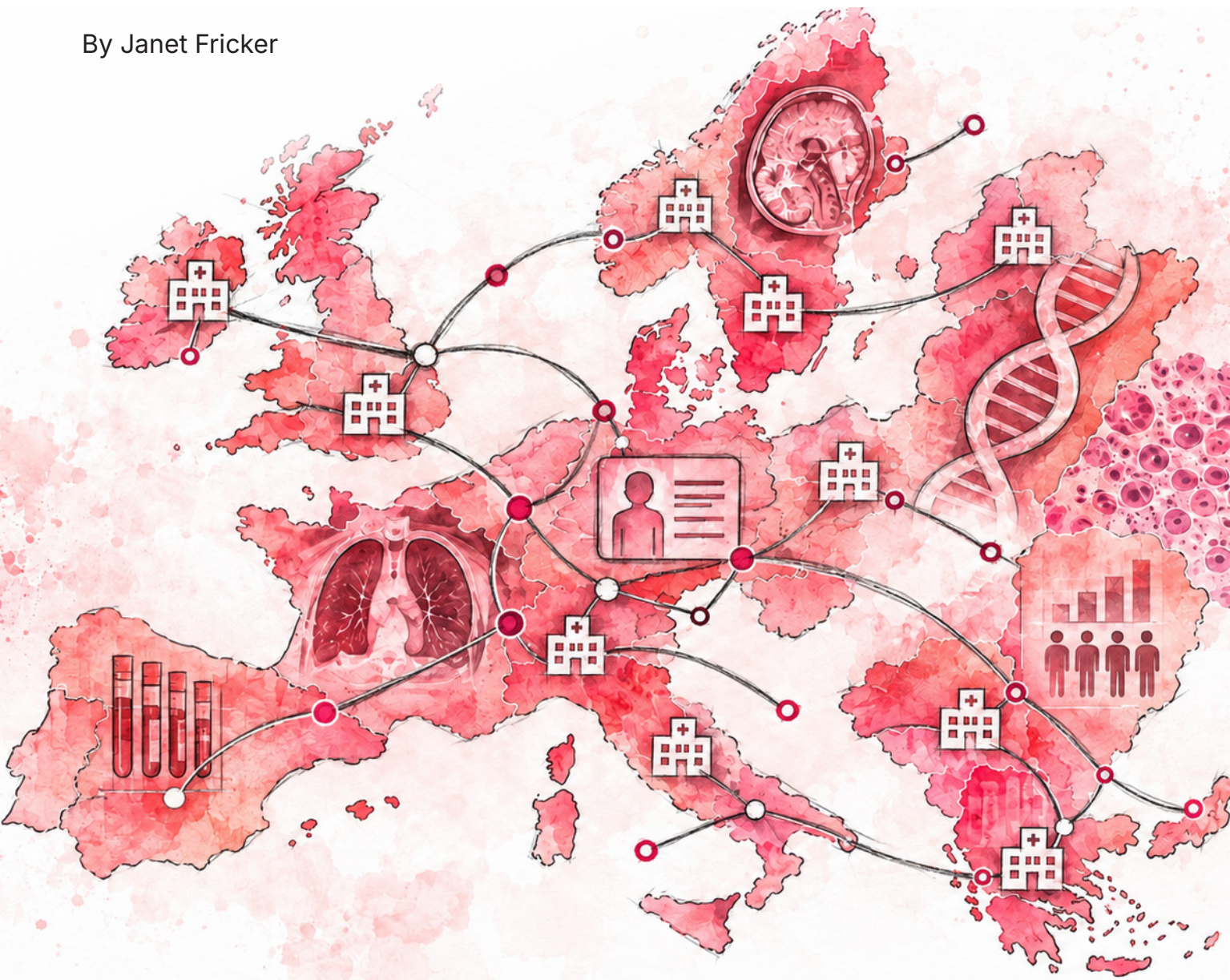
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European Cancer Data

Sharing Hampered by Legal and Interoperability Barriers

By Janet Fricker



Most European cancer institutions are already sharing data for research, but legal complexity, General Data Protection Regulation (GDPR) compliance, and poor interoperability remain major obstacles to creating a truly connected European cancer research environment. The survey, published in the International Journal of Medical Informatics, September issue, found that more than 80% of institutions actively shared data for research, but adoption of common data standards remained fragmented. Only 33% of institutions used Fast Healthcare Interoperability Resources (FHIR); while just 21% used the Observational Medical Outcomes Partnership Common Data Model (OMOP-CDM).

"Our findings suggest that the principal obstacles to cancer data sharing may be less about willingness to collaborate and more about the legal and organisational environment in which sharing takes place," Eivind Hovig, the principal author, tells CancerWorld. "Strategic investment is needed in legal support, interoperability infrastructure, and skilled personnel."

Data sharing is fundamental to biomedical cancer research, with multi-institutional collaborations improving reproducibility, enabling follow-up analyses, and becoming increasingly important for harnessing artificial intelligence (AI) in cancer research. Recent studies have highlighted the challenges facing cancer research, where the potential value of linking clinical, imaging, genomic, and outcomes data has been constrained by legal, technical and organisational barriers to data sharing. For example, a recent study seeking to assemble mutational signatures and clinical outcomes in metastatic colorectal cancer encountered difficulties coordinating ethical approvals and data-access procedures across participating countries. The study was reported in the European Journal of Public Health in 2025.

Inspiration for the current study came from the European Health Data Space (EHDS), an EU regulatory framework that entered into force in March 2025 and is being implemented gradually. The EHDS aims to make electronic health data more accessible, interoperable and usable across European countries, while maintaining strong safeguards for privacy and security. *"Against this backdrop, we wanted*

to ask a very simple question: Who in Europe is currently sharing cancer data for research, and for what purposes?" explains Hovig, from the Institute for Cancer Research at Oslo University Hospital.

A Willingness to Share, But a Fragmented System

The survey was developed by the AI and Infrastructure Task Force of the EU Joint Action Network of Expertise (JANE), an EU4Health Joint Action launched in 2022 under Europe's Beating Cancer Plan to develop European Networks of Expertise (NoEs) in areas where collaboration could add value. The 22-item survey covered three areas: institutional characteristics; data storage and sharing; and data processing and technology. It was initially distributed to 410 individuals across approximately 150 European cancer institutions that met predefined criteria for involvement in cancer care or academic cancer research who were participating in either JANE or the European Network of Comprehensive Cancer Centres (EUCCCNET). Between May and August 2024, 75 institutions across 23 European countries responded, representing a response rate of around 20%.

Results showed that 65 institutions (87%) reported sharing data for inter-institutional research, while 58 institutions (77%) aimed to expand their data-sharing capabilities.

The extent of sharing varied according to data type. Medical records were collected by 63 institutions (84%) but shared by only 37 (49%); clinical trial data were collected by 56 (75%) and shared by 49 (65%); genomic data were collected by 50 (67%) and shared by 35 (46%); and imaging data were collected by 61 (81%) and shared by 41 (55%).

The survey revealed limited adoption of common clinical data standards, with only 25 institutions (33%) using Fast Healthcare Interoperability Resources (FHIR), a standard for exchanging healthcare information electronically, and just 16 (21%) using the Observational Medical Outcomes Partnership Common Data Model (OMOP-CDM), which standardises observational health data into a common structure for research and analysis.

Legal Complexity and Interoperability Remain the Biggest Barriers

When asked about barriers, 31% of respondents identified GDPR and privacy compliance as the leading non-technical obstacle, followed by general legal challenges (24%), staffing costs (14.7%) and administrative complexity (13.3%). Among technical barriers, interoperability was the most frequently cited (35%), followed by security and privacy protocols (16%). Around half of institutions relied on external service providers for data sharing, using a mixture of open-source software, commercial cloud solutions and internally developed tools.

"The current situation is that originating health institutions have an inconsistent and fragmented understanding of, and approach to, implementing the regulations, with limited incentive to take on this challenge. As a consequence, institutions tend to defer responsibility to individual scientists, which is not conducive to good scientific practice," says Hovig.

As precision cancer medicine comes of age, deeper molecular stratification and the growing number of treatment options are creating ever-smaller patient cohorts. *"This will make it increasingly difficult to recruit patients to clinical trials in a timely way. A larger recruitment base could help accelerate this process, and data sharing would be an important way of achieving it,"* says Hovig.

Any solution will depend on high-quality, well-curated, and standardised data from individual hospitals. *"This implies that hospitals need to be enabled to restructure their data for high-quality data sharing,"* says first author Larson Hogstrom. He adds that achieving this will require greater harmonisation of regulatory practices across Europe, supported centrally by participating countries.

Data standardisation is particularly important for the use of AI and machine learning with large datasets. *"If disparate sources of data use different standards, this creates barriers. Currently, the convergence of standards is not clear, and significant work remains to clarify the situation,"* says Hogstrom.

Greater adoption of FHIR and OMOP technologies could help create more effective research environments. *"If European institutions were to adopt standards such as FHIR and OMOP more consistently, this could make healthcare systems more interoperable and data more consistent, enabling more efficient exchange of important health information,"* says Hogstrom.

Can the European Health Data Space Close the Gap?

The EHDS is still under development, with the survey findings potentially helping to inform the structures needed to support more efficient research. *"We have hopes that the EHDS regulations and ongoing development work will help deliver much-needed improvements in the way health data are shared for research,"* says Hovig.

Looking ahead, the authors argue that future surveys should also monitor the uptake of emerging technologies. *"As privacy-preserving computation and generative AI tools rapidly enter clinical research workflows, future surveys should track their adoption alongside emerging ethical and governance considerations,"* they write.

The authors acknowledge several limitations, including a potential bias towards larger cancer institutions, the fact that respondents were associated with the JANE or EUCCC NET networks, and the self-reported nature of the data, which reflects individual rather than necessarily institutional perspectives.

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Janet Fricker is a UK medical writer with an MA in Physiology from the University of Oxford. She is the News Editor of CancerWorld. Janet has worked for the Cancer Drug Development Forum, Cancer Research UK, Lancet Oncology, European Journal of Cancer, Molecular Oncology, Ecancer Medical Science, and European School of Oncology (where she wrote the Oncopaedia sections on breast cancer). She has written for consumer publications including The Times, The Economist, The Daily Mail, The Independent and Marie Claire.



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