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CANCERWORLD

THE SCIENTIST WHO REFUSED TO MOVE SLOWLY

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NOT FOR SALE

Scientific discovery drives oncology forward, but progress only truly begins when knowledge is turned into action.

Every issue of *CancerWorld* explores the people, ideas, and systems shaping the future of oncology. Scientific breakthroughs remain essential, but their true value emerges only when they are put into practice through leadership, policy, and care that reach patients everywhere.

The March issue opens with the career story of **Dr. Karen Knudsen,** whose work reflects a singular conviction: science must move at the speed of patients' needs. From early work in yeast genetics to leading major translational programmes in prostate cancer, and now heading the Parker Institute for Cancer Immunotherapy, Knudsen has repeatedly stepped into complex institutions and rebuilt them around measurable impact. Her philosophy rejects incrementalism in favour of ambitious, curative goals guided by rigorous data, strategic discipline, and the belief that progress need not be slow.

Our second cover story follows the remarkable path of **Dr. Bente Mikkelsen,** whose career trajectory from sociology student and medical leader in Norway to obstetrician and health system reformer laid the foundation for her global influence. At the World Health Organization, she turned vision into concrete policy, driving initiatives on non-communicable diseases, championing childhood cancer, and forging unprecedented collaborations across public and private sectors. Now at St. Jude Children's Research Hospital, Mikkelsen continues to transform pediatric oncology worldwide, advancing equity, strengthening health systems, and delivering tangible results that save children's lives.

Leadership remains a central theme throughout this edition. **Dr. Isabel Rubio,** President of the European Cancer Organisation, argues that Europe's cancer future will depend not only on scientific advances but on leaders capable of building trust, closing persistent inequities, and converting policy into meaningful change. Drawing on decades of clinical experience and advocacy at the European level, she highlights the importance of listening, collaboration, and courage in shaping the next phase of cancer control.

Innovation in oncology also requires balance. CancerWorld profiles **Dr. Michael Gnant,** whose four decades of work in breast cancer surgery, mentorship, and global clinical trials demonstrate how progress often lies in refinement rather than escalation. Through evidence-based de-escalation, patient-centred decision-making, and systems thinking, Gnant illustrates how modern oncology can advance while preserving the human core of clinical care.

Global disparities remain one of the field's most pressing challenges. **Dr. Mohammed Safi** reflects on cancer care across diverse healthcare systems from China and the United States to Yemen highlighting how scientific advances must be adapted to local realities if they are to benefit patients worldwide.

Scientific developments featured in these pages point to promising new directions. Our news editor **Janet Fricker** reports on research into pancreatic cancer detection using a four-biomarker blood panel that significantly improves early diagnosis. If validated further, this approach could bring new hope for earlier intervention in one of oncology's most difficult diseases.

Meanwhile, the evolving therapeutic landscape raises critical questions about access. **Dr. Amalya Sargsyan** explores a quiet revolution in oncology as Nivolumab, the landmark PD-1 inhibitor, moves off patent. She reveals how biosimilars could widen access, challenge healthcare systems, and potentially mark the beginning of a truly global immunotherapy revolution turning a scientific breakthrough into a fight for equity in oncology.

Elsewhere, the magazine highlights how expertise and commitment at the local level can reshape national cancer care. **Dr. Fatjona Kraja's** professional path from advanced training across Europe and the United States to leadership in Albania demonstrates how international knowledge can be transformed into sustainable, patient-centred radiation oncology services.

Beyond policy and science, this edition also reflects on the human experience of cancer. **Adrian Pogacian** offers a powerful reflection on the emotional journey patients face, underscoring the importance of empathy, honest communication, and psychosocial care alongside clinical treatment.

Finally, **Kevin Donaghy**, author of the book *Stories of Cancer and Hope,* traces his personal story from diagnosis with advanced melanoma through isolation, psychological struggle, and ultimately renewed purpose. His account demonstrates how connection, shared experience, and patient-led advocacy can transform individual survival into collective impact, redefining hope as both a personal and global force.

The stories in this issue remind us that progress against cancer is never the result of science alone. It is built through leadership that challenges systems, policies that expand access, and care that never loses sight of the person behind the diagnosis.

Across laboratories, clinics, and communities, the task remains the same: to turn discovery into action and ambition into lives saved.

Knarik Arakelyan, Managing Editor, CancerWorld

KAREN KNUDSEN

The Scientist Who Refused to Move Slowly

By Gevorg Tamamyan

"I'm a scientist first and foremost. I don't remember a time not thinking about being a scientist."

What Karen Knudsen, the CEO of Parker Institute for Cancer Immunotherapy, remembers clearly is the pull not toward prestige or power, but toward understanding. "Curiosity toward improving human health," she says. That phrase improving human health returns again and again, like a refrain, anchoring every turn of her journey.

Learning to Use Simple Systems to Solve Human Problems

Her first real encounter with cancer research came as an undergraduate in Washington, D.C., at George Washington University. It was the late 1980s, the AIDS epidemic was raging, and science was racing to understand retroviruses before they outpaced humanity.

A mentor noticed how much she loved the lab and nudged her toward the National Cancer Institute. *"Why don't you go there for the summer?"* he suggested.

She did, and it changed everything.

At Frederick National Laboratories, she worked on Ty1 retrotransposition in yeast, a seemingly abstract system that, at the time, was one of the most powerful tools available to understand HIV and HIV-related cancers.

"I got a little bit addicted," she admits, smiling "to this strategy of using the rigor of yeast genetics to solve human problems."

That addiction became a philosophy.

When she went on to earn her doctorate at UC San Diego, she chose **Schizosaccharomyces pombe,** a yeast species evolutionarily distant from baker's yeast, but remarkably similar to humans in how genes are spliced and regulated.

"This was the moment when all the cell-cycle genes were being identified," she recalls.

She was handed a random radiosensitive mutant. Through complementation, she cloned Rad1, a key component of the 9-1-1 DNA damage checkpoint complex.

"That's when I really started thinking about DNA damage checkpoints and how they relate to human disease," she says. "And of course, cancer."

The Pivot Toward Translation

The true pivot came during her fellowship with **Dr. Webster K. Cavenee,** a member of the National Academy of Sciences and one of the scientists who proved the existence of tumor suppressor genes through retinoblastoma.

"He wanted to start a prostate cancer program," she explains. "And that put me on the path of translation."

At the time, breast cancer advocacy was rightly transforming research funding. But Dr. Cavenee pointed out a glaring omission.

"Prostate cancer was the most commonly diagnosed malignancy in men in the U.S. and the second leading cause of cancer death, and yet it wasn't being addressed."

The challenge was clear: build a translational program that could actually change outcomes.

Karen Knudsen brought what she knew best—cell cycle control.

"In his lab, I identified how androgens control cell cycle and survival in prostate cancer," she explains. "That led to targetable pathways."

Those pathways followed her when she launched her own lab at the **University of Cincinnati School of Medicine,** where she doubled down on **cell cycle, DNA damage response, and transcriptional regulation**—the very machinery downstream of the androgen receptor that defines metastatic prostate cancer.

But something else was happening.

"I was working hand in hand with urology, medical oncology, radiation oncology, pathology," she says. "Building teams."

That, she realizes now, was the second great pivot of her career.

Building Teams to Accelerate Discovery

She was recruited to **Jefferson Health** with a clear

mandate: take extraordinary individuals and turn them into a system.

"They had incredible people with prostate cancer," she says. *"But they needed someone to connect the science and the clinic—to make discovery faster, and benefit people. That's what I care about."*

At Jefferson, her trajectory accelerated. She built the prostate cancer program, became **Vice Provost**, then **Deputy Director**, then **Director of the NCI-designated cancer center**, and **Executive Vice President of Oncology Services.**

Her lab never stopped, but her role evolved.

"I was converting science into patient care," she says simply.

What she led, however, was anything but simple.

Under a highly entrepreneurial CEO, Jefferson grew from **three hospitals** into a **16-hospital, fully integrated system.**

"I look back and wonder what I did with all my time," she says, laughing.

Yet one principle remained constant: science must serve patients.

"The more we convert science into clinical trials for prevention, detection, and cure the better off our patients are."

She pushed trials into the community. She built advanced care hubs before the model existed. Rare-disease scientists suddenly had access to real patient populations. Patients who would never travel downtown had access to innovation.

"I love health care," she says. *"And the science of converting science to people. That's why you do science to help people."*

She thought she would do that forever.

The Call That Changed Everything

Then the phone rang.

A recruiter. A question no oncologist had ever been asked before.

Would she consider becoming **CEO of the American Cancer Society?**

At the time, ACS was struggling. Seven consecutive years of losses. Seven years of layoffs. A recent merger of dozens of federated organizations into one without a unifying vision.

"They were looking for someone who came from oncology," she says. *"And someone who understood merger and acquisition."*

She was the first.

What followed was one of the most ambitious transformations in modern cancer philanthropy.

"We redefined the mission. The vision. The structure," she says. *"All anchored around three pillars: research, advocacy, and patient support."*

They grew impact. They stabilized finances. They did it with **1, 000 fewer employees** than ACS had ever had.

"It felt really good," she says. *"And I knew when it was time to hand it over."*

Because there was still one more pivot left.

"I wanted to be back in the engine of innovation," she says. *"Back to getting science to people."*

She was ready to sign elsewhere when **Sean Parker** called.

And everything aligned.

"Data-driven, hypothesis testing but on a quick timeline."

When I ask Karen Knudsen what the key to her success is, she doesn't reach for mythology. She reaches for the method.

"Well, you know," she begins, *"I think any person with a scientific background is running a business even if you're just running a lab."*

It's not a metaphor for her. It's a fact.

"You have to have a strategy, your scientific strategy. You're managing people and you're managing budgets. You're also very adept at data handling, hypothesis-generating all of the things that are key, I think, for business success."

Then she gives the sentence that quietly summarizes her entire leadership philosophy:

"My approach to business is the same as my approach to science: data-driven, hypothesis testing but on a quick timeline."

"Because we can cure cancer. And people need it."

Dr. Knudsen is not a leader who worships strategy as if it were sacred text.

"Strategy is not something you build on one day and it's etched in stone," she says. *"It's a dynamic strategy that needs to bend through iteration."*

But flexibility, in her mind, is not weakness. It is a disciplined adaptation, anchored by a core that does not move.

"You have to hold fast to a core of what it is that you're trying to achieve," she says, "and inspire others to see that vision."

And when she speaks about Parker Institute for Cancer Immunotherapy, she doesn't speak in half-aims.

"The more your teams can see the why—why are you doing what you do at the Parker Institute? ***Because we can cure cancer. And people need it."***

She doesn't dilute the mission. She sharpens it.

"Our model lets us go faster. We are focused on therapy.

We are focused on curative intent which is a really unique and bold place to be."

Then she draws a line, unmistakably.

"We don't balance our portfolio with incremental science," she says. ***"It really is all about ambitious science."***

The formula, she tells me, is not complicated—just brutally honest.

"There's having the right strategy. There's having the ability to fund the strategy. And then there's having the right people to execute that strategy."

At Parker, she believes the foundation is already there.

"I'm very fortunate... we have a phenomenal team already in place," she says, "and we'll be doing some adding but a phenomenal team... to see this vision and execute on it."

Mentors: The People Who Let You Become More Than You Thought You Were

When I ask her about mentors, she answers like someone who actually uses that word with reverence.

"They're really important," she says.

She begins with **Dr. Cavenee**—her postdoctoral mentor still reachable, still present.

"I haven't worked for him since I was a kid showing up in the lab in cut-off jeans and braided hair, getting ready to go surfing after I was in the lab on Saturday," she laughs. But the bond never became obsolete.

"I could pick up the phone and call him right now and he would devote whatever time I needed."

She calls him *"a brilliant man"* in scientific strategy, but what she's really describing is something deeper: a mentor who stays.

Then she names the person who shaped her leadership most powerfully: **Dr. Stephen K. Klasko,** CEO of Jefferson Health and Thomas Jefferson University.

"He empowered me," she says. *"He told me I should run oncology like the CEO of cancer."*

And he didn't just hand her responsibility he handed her authority.

"He was going to hold me accountable for the strategy I put in front of him," she says, "but he was going to give me free rein to execute on that strategy, run the budget and if something got in my way, to contact him."

In complex systems, trust is not a compliment—it's a tool. **Dr. Klasko** gave her the tool.
What they built was not easy.

"It's not so simple," she says, *"when you are acquiring*

health systems and cancer care units across two states that have very different views of how to manage quality cancer care and to get them to align to a single service line, single quality of care across the system."

And then there was the other bold move: pushing advanced cancer care outward.

"If you're going to put specialists and advanced care out into the community," she says, *"that's a bold step too."*
She pauses, then says it plainly:

"We were entrepreneurs in this."

"Be Bold. Think Differently. Do the Right Thing."

At Jefferson, Dr. Klasko built something rare: a culture that could be repeated out loud.

"Doing the right thing was one of our core principles," she says.

And not in the vague, motivational sense. In the operational sense.

"All 33,000 people… could tell you on any given day," she says, *"because it was everywhere."*

The principle had three parts:

"Be bold. Think differently. And do the right thing."

Even performance reviews were built around it.

"That was what your performance review was like," she tells me. *"'Karen—how were you bold this year? How did you think differently? Tell me how you did the right thing.'"*

And when decisions were painful as they always are at scale, they returned to a single anchor:

"Is this doing the right thing by the patients who come to Jefferson Health?"

Telehealth, COVID, and the Lesson That Changed How She Sees the Future

Then she gives me a story that feels like a leadership case study, but it's also something more: a warning against running an organization only for today.

Before COVID, telehealth was not mainstream. Reimbursement was weak. Adoption was slow. Most systems treated it like a side project.

Dr. Klasko didn't.

"He knew this was going to come," she says. *"This was the medical delivery of the future."*

So he did something that sounds almost unreasonable until you realize how visionary it was:

"He required all providers at Jefferson Health irrespective of reimbursement to do one telehealth visit a month."

One visit per month. No excuses. Build muscle.

"We set up the infrastructure for it," she says. "One telehealth visit per month, period."

Then COVID hit.

"People didn't stop getting cancer during COVID," she says, almost quietly because that sentence still carries weight.

But many smaller practices collapsed temporarily. One COVID-positive nurse could shut down an entire clinic.

And suddenly Jefferson became a lifeline.

"My patient base… 10,000 cancer cases per year," she says, "grew phenomenally."
Because they were ready.

They triaged what needed physical presence, shifted follow-ups to virtual, used community-based labs, and scaled care immediately.

"We were able to scale by the thousandfold," she ***says, "immediately."***

Then comes the lesson she says she carries everywhere now:

"What's true now is completely insufficient to run an organization," she tells me. *"It's what's going to be true five years from now and how do you make it happen earlier."*

"That's the way I think," she says. *"And I think that way because of Dr. Klasko."*

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Mentees: The Work Family You Never Stop Carrying

When I ask about mentees, she answers with pride, but also with the humility of someone who knows mentorship is never one-directional.

"I'm really fortunate," she says, *"with the trainees who came through my lab."*

She's proud that almost all of her PhDs and fellows—MDs and PhDs are still in academic medicine or pharma, still in oncology.

And she's still emotionally invested in their milestones.

"I heard from one of my fellows already this morning," she tells me, *"she was super excited because she just got her first big grant award."*

Then she says something that every scientist knows, but few say out loud:

"They're like your work family. You spend more time with them than you do with your own family in science and medicine."

Her other "mentees," she says, are the executive teams she has led, especially at the American Cancer Society.
"We worked hard together," she says. *"Absolute sheer dedication to the mission."*

But she refuses the heroic framing.

"I learned from them as much as they learned from me," she says. "All of us should be in the mode of two things: consistently learning from mentors and consistently giving back."

Books: Science, Strategy, and the Quiet Rebellion of Strong Women

When I ask which book made the biggest impact, she hesitates not because she lacks answers, but because she has too many.

So she gives me more than one, because, as she admits, she's "a big bookworm."

For science and medicine, she recommends **Deep Medicine** by **Eric Topol**.
"It got me beyond therapeutic science," she says. *"Beyond cancer. Thinking about technologies that are going to change medicine in the future."*

And again she returns to her central obsession:
"What are the things that are really going to change us in the future, and how do we get there faster?"

Then she shifts into business mode almost amused that she's admitting it.

"I'm kind of a business geek too," she says. "I have an MBA and a PhD."

She names **Good to Great** a classic and **Playing to Win**, which she calls *"the best blueprint for strategy."*

But when she speaks about books that changed her life, she goes somewhere else entirely: **Jane Austen.**

Growing up, she says, she was the youngest, the only girl, in a military family *"full of men."* She has sons now. She is still surrounded by men.

And as a child, she found something clarifying in Austen's women.
"Her female characters are really strong," she says. *"They navigate an environment around them which expects them to have a very different role in life—right? To be pretty and get married."*

But Austen's women do something radical in quiet ways.

"They find ways to follow their own dreams," she says, *"follow their own path and hold true to themselves."*

She smiles.

"She's also quite funny," she adds. *"And I love comedy."*

So perhaps it makes sense: the leader who now runs a high-velocity, high-risk engine of immunotherapy innovation first learned something essential from novels about strength, humor, and refusing the role assigned to you.

"To Not Let Things Get In Your Way"

When I ask if people calling her *"strong"* are connected to her childhood, she doesn't deny it.

"When you grow up in a military family," she says, *"you're just meant to be tough and resilient."*

But her story is not the stereotype people expect.
"It's not just any military family," she says. *"My father was a special forces first intelligence officer on Delta Force... Green Beret... black ops most of my life."*

Later, he ran security for the United Nations in Somalia.

"He's no shrinking violet," she says.

And then she flips the narrative.

"People usually think, oh, your dad must be the one you learn all this from."

But she wants me to look at the person who kept the whole system alive.

"Think about the wife," she says. *"Moving every few years. Reinventing herself every time."*

Her mother, she says, is *"a force of nature in all the right ways."*

"She had to reinvent herself... new occupation, new job, new way to think," Karen says.

Eventually, when they stayed in one place long enough, her mother became a business executive one of the early executives at **Williams-Sonoma**, helping grow it from a small chain into something much larger.

From her mother, Karen Knudsen learned the kind of resilience that doesn't announce itself:

"Being focused on having your personal life and your family be the most important thing," she says, *"but at the same time you can have a thriving professional career."*

And then she delivers the sentence that feels like inheritance:

"To not let things get in your way."

"If I learned something from my mom," she says—*"who I still talk to every day"*—*"it's to just not see obstacles."* And when obstacles do appear?

"They're just an opportunity to think differently."

Advice to the Next Generation

Her advice is not trendy. It's not performative. It's simple and it comes from someone who has lived several careers inside one life.

"Follow your dream and your curiosity," she says.

"When you love what you do, it doesn't feel like work."

She's honest that the hours are long. But she's more interested in direction than comfort.

"If you had asked me when I was 15... or 25... or maybe even 30 if these were the things I would do," she says, *"I would say absolutely no way."*

But opportunities arrived and each one made sense because she wasn't chasing a title. She was chasing impact.

"Each time... I was following what really interested me," she says, *"and most importantly where I thought I could have a positive impact on people."*

"So," she concludes, *"I don't sweat what the path is going to be. Just follow your desire."*

One Sentence

I ask her to describe herself in one sentence—the question you always ask.

She doesn't hesitate long.
"Service-oriented," she says, "and committed."

Who Should I Interview Next?

Her answer comes with energy, almost relief, as if she's been waiting for you to ask.

"I think you should interview Dr. Stephen K. Klasko," she says.

Then she adds the caveat because she's honest:

"He's not in oncology."

But she argues that sometimes the most important voices in cancer are not oncologists. They are the leaders who reshape the systems around care.

"There's a reason why he's such a big national figure," she says. *"He thinks differently."*

She sketches his trajectory like a portrait of relentless reinvention:

An OB-GYN who becomes a dean. Then a university president. Then president of Jefferson Health and Thomas Jefferson University. An MD-MBA from Wharton. And then, at 70, he decides to go to law school because he thinks entrepreneurship needs better lawyers.

"The guy's not going to slow down—ever," she says, smiling.

"He's a model of one."

LEADING WITH LISTENING

Why Isabel Rubio Believes Europe's Cancer Future Depends on Trust, Equity, and Political Courage

By Knarik Arakelyan

Leadership in oncology is often measured in breakthroughs, budgets, and policy frameworks. But for Dr. Isabel Rubio, President of the European Cancer Organisation (ECO), leadership begins somewhere far more intimate: in listening.

"Progress happens only when expertise is matched by trust," she says. "And strategy must always be grounded in listening."

It is a philosophy shaped not in boardrooms, but at the bedside — forged during her earliest years as a young surgeon confronting the realities of breast cancer care. At just 26, Rubio witnessed a clinical culture in which women were routinely excluded from decisions about their own bodies.

"There was a very paternalistic approach," she recalls. "Patients were simply told they needed a mastectomy, with little discussion, no consideration of preferences, and no exploration of reconstruction options. I found this deeply unacceptable, both clinically and ethically."

That moment became her defining professional compass. **"I promised myself I would practise medicine differently — and I did."**

Today, as one of Europe's most influential voices in oncology policy, Rubio is applying that same conviction to a much larger canvas: reshaping how Europe delivers, governs, and invests in cancer care.

From Medicine as Heritage to Medicine as Responsibility

Raised in a family of physicians — her father a head and neck surgeon, her mother a paediatrician — Rubio grew up immersed in clinical life. Medicine was not merely a career choice; it was a way of understanding the world.

Her training across multiple European health systems sharpened her political awareness. Witnessing both excellence and inequality, she came to see cancer not only as a biological disease, but also as a social one.

"I saw how high-quality cancer care can transform outcomes," she says. "But I also saw how access to screening, treatment, and innovation varies widely between countries and within them."

This contrast cemented her belief that cancer care is fundamentally a societal obligation.

"Ensuring equitable access across Europe must remain a central goal of our health systems and policy efforts," she argues.

This conviction now underpins her presidency at the European Cancer Organisation: **leadership in oncology must not only push science forward, but also pull systems closer together.**

Inequality: Europe's Unresolved Cancer Crisis

For Rubio, inequality is not an abstract concept. It is a measurable determinant of survival.

"When screening participation is high, cancers are detected early and outcomes improve. When participation is low, survival suffers dramatically," she says.

Despite decades of innovation, unequal access to screening, specialist care, and advanced therapies remains Europe's most stubborn cancer challenge.

"It is the most persistent and frustrating problem we face," she says.

Her leadership stance is clear: scientific breakthroughs alone cannot deliver progress if systems fail to deliver access. That is why her policy focus-centres relentlessly on prevention, early detection, and sustained investment.

"Without political commitment and resources, progress cannot be maintained," she warns.

The Politics of Momentum: Turning Europe's Beating Cancer Plan into Lasting Change

Rubio's presidency comes at a pivotal political moment. Europe's Beating Cancer Plan has injected unprecedented momentum into EU cancer policy, elevating cancer control to the highest political level and mobilising significant financial and institutional resources. For the first time, Europe has a coordinated framework spanning prevention, early detection, treatment, survivorship, research, and inequality reduction.

Yet, Rubio cautions, momentum alone is not enough.

"The progress achieved through Europe's Beating Cancer Plan must not be allowed to stall," she insists. *"Without sustained political commitment and long-term funding, we risk losing what has been built."*

Her top priority is securing **strong, protected cancer funding within the EU's next Multiannual Financial Framework (2028–2034)** — a decisive budget cycle that will determine whether the ambitions of the Beating Cancer Plan become structural change or remain time-limited initiatives.

"We cannot afford political short-termism when the stakes are measured in lives," she says. "This is about safeguarding Europe's collective investment in better prevention, earlier diagnosis, fairer access to treatment, and stronger survivorship care."

Beyond funding, Rubio argues that the Plan must evolve toward **greater accountability, clearer targets, and stronger coordination.**

"We need timely, reliable, and comparable evidence to identify inequities, guide investment, and measure progress," she says.

Under her leadership, ECO positions itself as a bridge between policymakers, clinicians, and patient organisations, translating political ambition into coordinated implementation.

"Our role is to build consensus and turn it into practical, implementable policy," she explains. *"Then to maintain structured engagement with decision-makers so that evidence becomes action."*

In this sense, Rubio sees ECO not as a parallel actor, but as a catalyst, ensuring that Europe's Beating Cancer Plan delivers tangible improvements for patients across all countries, not just those with the strongest health systems.

Trust as a Cornerstone

At the heart of Rubio's leadership philosophy lies a deceptively simple idea: **trust is fundamental.**

"Effective leadership requires bringing people together, understanding different perspectives, and aligning them toward a shared goal," she says.

This ethos guides her across multiple European oncology leadership roles. It also informs ECO's convening model, where clinicians, patients, and policymakers co-develop recommendations rather than operate in parallel silos.

Tools like the European Cancer Pulse reflect this approach, making inequalities visible and comparable so political debate can move beyond rhetoric toward accountability.

"Data allows us to agree not just on priorities," Rubio notes, *"but on where action will have the greatest impact and whether we are truly closing gaps."*

Women, Cancer, and Policy Blind Spots

One of the clearest expressions of Rubio's political leadership is her focus on women's realities in cancer policy.

She also highlights the critical role of women in the cancer workforce, emphasizing the need for fair representation, leadership opportunities, and policies that recognize the gendered burden of care within the health system.

Despite decades of progress, health systems still fail to reflect the full spectrum of women's experiences across prevention, diagnosis, treatment, survivorship, caregiving, and leadership.

"This is exactly why we are launching the Women & Cancer Policy Index," she explains. *"To compare how countries are addressing women's cancer and generate evidence that drives investment, coordination, and reduced inequalities."*

More broadly, she sees optimism in Europe's recent political commitment.

"Europe has shown it can accelerate progress when political commitment is matched by resources," she says. *"The task now is to protect that momentum and make sure innovation reaches every patient, not only those who live in the 'right' postcode."*

Redefining Success in Cancer Leadership

For Rubio, leadership is ultimately judged not by institutional milestones, but by systemic resilience.

When her presidency concludes in 2027, she hopes her legacy will be measured in political durability.

"If we help secure a strong, visible EU commitment to

cancer in the next long-term budget, that would be a meaningful legacy," she says.

Her ambition includes sustained investment, stronger coordination through a European Cancer Institute, and clearer data-driven accountability mechanisms. Most of all, she wants ECO to remain a trusted space for collaboration.

"I want it to be recognised as the place where cancer professionals, patients, and policymakers build the trust that makes political progress possible," she says.

Leadership Grounded in Humanity

Despite her policy focus, Rubio's leadership remains deeply personal, shaped by thousands of patient encounters.

"Listening to patients describe their fears, uncertainties, and how cancer disrupts their lives taught me the importance of empathy, communication, and trust," she reflects.

That early promise to practise medicine differently now extends far beyond the clinic.

In Rubio's vision, leadership in oncology is not about command, control, or charisma. It is measured not by authority or visibility, but by the ability to listen with intention, act with compassion, and make choices that honour cancer patients' lived experiences.

In a Europe facing rising cancer incidence, fiscal pressure, and political uncertainty, her message is both simple and radical:

"Real progress begins when leadership chooses listening over hierarchy and equity over convenience."

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, and serves as PR and Communications Officer at "EMERTÉ" Clinic.

MICHAEL GNANT

AT THE CROSSROADS OF ONCOLOGY

Precision, Restraint, and the Courage to Challenge Orthodoxy

By Yeva Margaryan

Sixteen years ago, Dr. Michael Gnant was portrayed in CancerWorld as a surgical oncologist unafraid to push boundaries in breast cancer care. Today, his perspective reflects not retreat but evolution. The boundary-pusher remains, but his focus has widened. His work is increasingly global, his travel more frequent, and his role more firmly anchored in teaching and mentorship.

What emerges is a physician who has moved from individual innovation to broader influence. The scope of Dr. Gnant's work now extends well beyond the operating theatre and beyond Europe, shaped by decades of clinical trials, international collaboration, and sustained commitment to education. In many ways, his trajectory mirrors the maturation of modern breast oncology itself: more data-rich, more interconnected, and more complex to navigate.

He acknowledges the passage of time with characteristic understatement.

"The pushing-the-boundaries thing kind of worked. We have made huge progress in several fields that we discussed 16 years ago."

From Surgeon to Global Mentor

What has changed most, Dr. Gnant suggests, is not only the science, but his role within it. Increasingly, he sees himself as a transmitter of accumulated experience, a transition many senior oncology leaders recognise, but few articulate so plainly.

His work now centres on international engagement: supporting programmes across health systems and mentoring younger clinicians. The emphasis has shifted from proving concepts to ensuring they are implemented wisely.

"This is now really a global activity... I have become more, even more of a teacher, I would think."

Yet the broader vantage point has sharpened his concerns about modern surgery. Technological progress is undeniable, he says, but it risks pulling attention toward tools and away from patients.

Consulting patients together with fellows at Dalian Cancer Hospital, China, April 2025

"Surgeons have a tendency to be focused too much on technology... and maybe... a little bit too little on the people who trust us."

For Dr. Gnant, the core contract of surgery remains profoundly human, and increasingly easy to obscure in a high-tech era.

Seed and Soil. Validated, But Unfinished

Few areas better illustrate Dr. Gnant's long-view thinking than his early work on the tumour microenvironment. Bone-targeted strategies that once felt exploratory are now embedded in guidelines worldwide, a translational arc many investigators aspire to but rarely achieve.

"Bisphosphonates and antibodies are now a standard of care... what was like a sensation back then... has now found inclusion into all the guidelines."

Yet the biology that matters most, dormant tumour cells driving late relapse, remains difficult to observe directly. Parts of the original "seed and soil" hypothesis are still inferential.

Where he now sees the most momentum is in liquid biopsy, particularly circulating tumour DNA (ctDNA). For Dr. Gnant, ctDNA offers a new window into minimal residual disease, the possibility of detecting what he calls "the tiny traces of the enemy" in peripheral blood.

But he is careful to draw the line between detection and action.

"Having said that, we still don't know what to do... if I tell you, okay, I found something in your blood, now what are you doing then?"

Even so, his forecast is clear: within the next decade, ctDNA monitoring is likely to move into routine early breast cancer care, reshaping how clinicians track treatment response and residual risk.

Academic Oncology in an Era of Consolidation

Scientific progress does not unfold in isolation. Behind each biomarker advance lies a clinical trial ecosystem that has itself undergone quiet but profound change. Over the past 15 years, investigator-driven groups have faced mounting pressure to professionalise, or risk fading from relevance.

Presenting at ASCO 2025, with the Austrian signature slide on screen

Few organisations illustrate this shift more clearly than the Austrian Breast & Colorectal Cancer Study Group (ABCSG). What began as a relatively lean academic network has matured into a highly structured international trial platform.

"I think it has become more challenging... those academic groups who did not manage the transition... are disappearing."

Scientific credibility alone, Dr. Gnant argues, is no longer sufficient. Operational depth, regulatory expertise, and global reach have become prerequisites for survival, a reality that has quietly redrawn the research landscape.

The Funding Fault Line

Even the most sophisticated academic infrastructure rests on a fragile financial foundation. In Europe, particularly, limited public investment continues to shape not only how trials are conducted but which clinical questions are pursued.

"Particularly in Europe, we still don't invest a lot of public... money into clinical research."

When industry inevitably carries more of the research burden, the centre of gravity shifts toward commercially viable interventions. For clinician-scientists focused on optimisation rather than escalation, this creates persistent friction.

"The priority of research questions has a tendency to be in fields where there is a commercial perspective."

Few areas expose this tension more clearly than de-escalation trials, studies designed not to add treatment, but to safely remove it.

"We have done trials of leaving something out... it's so difficult."

Bureaucracy, Safety, and the Risk of Overcorrection

Dr. Gnant is equally concerned about the expanding administrative architecture surrounding clinical research. What began as well-intentioned safeguards has, in his view, accumulated into a system that risks diverting energy away from patients.

"In clinical research, we could, as society, request to limit the bureaucracy."

Across institutions, he observes back-office functions expanding while frontline clinical capacity struggles to keep pace.

"We see these parts are growing, growing, growing... and the actual people in the field who care for patients... they are fewer and fewer."

His argument is not for deregulation but proportionality.

"We don't need 300... we just need these 50."

Beneath the procedural debate lies a deeper concern: how risk-averse can oncology become without slowing the innovation patients ultimately depend on?

"If you do something new, there's always some risk... we need to live with some risk to go there."

The goal, he insists, is recalibration, not retreat.

The Sad Reality of Europe: We are About to Become a Museum

As the conversation widens beyond breast cancer, Dr. Gnant's concerns take on a more geopolitical tone. For a clinician who has spent decades working across continents, the shifting balance of scientific power is impossible to ignore.

Europe, once the unquestioned intellectual engine of modern medicine, now faces a more uncertain position. The continent still produces high-quality science, but speed, scale and strategic investment increasingly favour competitors elsewhere.

Gnant's assessment is characteristically blunt.

"We are about to become a museum. This is sad."

Yet what follows is not resignation but a call to realism. Europe retains enormous structural advantages, population size, educational depth, and scientific heritage, but, in his view, has not fully translated these into coordinated innovation power.

"We are 500 million people... we have the power to change."

To illustrate what is possible, he reaches outside medicine to industrial history. The Airbus story, Europe's strategic response to Boeing's former dominance, serves as a template for what focused political will can achieve.

"In the airline industry, it just took two decades, and now we are leading. So why can we not?"

For oncology policymakers, the implication is clear: scientific leadership is rarely accidental. It is built.

Strength, Values, and the Price of Influence

Beneath the innovation debate lies a deeper philosophical concern about Europe's global posture. Dr. Gnant is openly supportive of the continent's social and environmental standards, but warns that values without competitive strength risk losing practical influence.

In a world increasingly shaped by economic and technological power, moral leadership alone may not suffice.

"You need to be powerful with solutions rather than harassing people with your principles."

His travels across diverse health systems have reinforced a pragmatic view: countries set standards most effectively when they combine ethical ambition with operational success.

"We can only impose a value standard if we are reasonably successful in economic terms."

The conclusion is not ideological but strategic.

"We need to be strong."

I was Right: Reducing Unnecessary Chemotherapy

If Dr. Gnant sometimes sounds like a systems thinker, nowhere has his clinical influence been more tangible than in the effort to reduce unnecessary chemotherapy in endocrine-responsive breast cancer.

Here, the tone shifts, not to triumphalism, but to measured vindication.
"We predicted that that's going to happen, and it actually happened. So I was right."

Two decades ago, withholding chemotherapy in selected patients required both data and conviction. Dr. Gnant recalls treating patients without chemotherapy at a time when many peers would have escalated by default, always, he emphasises, through transparent discussion and shared decision-making.

Today, the landscape has decisively shifted. For most postmenopausal patients with endocrine-responsive disease, chemotherapy omission has become standard practice worldwide.

"Most patients... after menopause, will not receive chemotherapy everywhere in the world."

Yet he does not consider the work finished. Important grey zones remain, particularly in younger patients. The next phase of de-escalation is already underway.

His group is now testing layered safeguards, including ctDNA risk stratification and short preoperative endocrine sensitivity testing, to identify additional patients who can safely avoid chemotherapy.

"We have just started two neoadjuvant trials where we try to identify the next subset... to treat them without chemo."

The direction of travel is unmistakable. In Dr. Gnant's practice, fewer than one-third of patients now receive chemotherapy, roughly half the proportion seen 16 years ago.

What began as selective restraint is becoming something more precise: not simply adding the right therapy, but confidently withholding it when biology allows.

AI, Empowerment, and the Enduring Role of Trust

Artificial intelligence, like many technological advances before it, provokes both enthusiasm and caution in Dr. Gnant's assessment.

"AI probably is smarter than the physician."

But clinical care, he insists, involves more than pattern recognition.

"Do you really want to have... AI telling you... you can die?"

For him, the answer lies in governance and collaboration, not rejection.

"Eventually, the people need to take control... where we want to use it."

If technology is reshaping oncology, so too are patients. Dr. Gnant views the rise of patient empowerment largely as progress, even when consultations become longer and more complex.

"I actually have patients who come with 20 pages printed out... and sometimes it's a lengthy conversation."

At the centre of modern care, he says, remains what he calls the "gift of trust" that patients extend to their physicians.

A Modest Beginning of Wisdom

Asked to describe himself today, Dr. Gnant's answer is notably unvarnished. The travel schedule remains heavy. Burnout has been a lived experience. Perspective, however, has deepened.

"I had burnout once... I have learned to be a little bit more economic with my resilience."

What he values most now is a particular professional vantage point, maximal experience paired with more time to engage directly with patients.

And, characteristically understated:

"There might be... a modest beginning of wisdom."

The Last Word

Across four decades of surgical oncology, Dr. Michael Gnant has repeatedly occupied uncomfortable territory, challenging overtreatment, questioning systems, and insisting that progress be measured not only by what medicine can do, but by what it should do.

His legacy is visible in guidelines, trials, and in the millions of women who have safely avoided unnecessary chemotherapy. But his more enduring contribution may be philosophical: a persistent insistence on balance.

Between innovation and restraint. Between technology and trust. Between speed and wisdom.

In an oncology landscape defined by exponential data and accelerating tools, that equilibrium may prove harder, and more necessary, than ever.

Progress, his career suggests, is not always about moving faster. Sometimes it is about knowing precisely when not to.

BRIDGING THE GLOBAL ONCOLOGY DIVIDE

From Dalian to Houston and Back to Yemen

By Mohammed Safi

A Global Summit, a Personal Reckoning

At the European Society for Medical Oncology (ESMO) Leadership Summit in Singapore, discussions moved rapidly from antibody–drug conjugates to next-generation sequencing and the expanding role of immunotherapy. Clinical trial curves filled large screens, and hazard ratios were debated with precision. The atmosphere reflected confidence in the rapid progress of modern oncology.

Yet as I listened, I felt a quiet professional dissonance.

The conversations taking place in this technologically advanced setting seemed far removed from the realities awaiting me in Yemen, a country where access to basic chemotherapy is often uncertain and diagnostic delays are measured in months rather than days.

The divide in global oncology is neither abstract nor theoretical. It is real and deeply felt.

Training Across Continents

My professional journey began at Dalian Medical University in China and continued at Shandong Second Provincial General Hospital, where I worked as a medical oncologist and principal investigator. My focus was tumor biology, particularly the signaling pathways shaping the tumor immune microenvironment. Our work explored how cancer interacts with the body and how treatment outcomes are influenced not only by malignant cells but also by coexisting cardiovascular and cerebrovascular risks.

Later, at MD Anderson Cancer Center in Houston, I expanded my experience into clinical and epidemiological research. I worked within multidisciplinary teams studying lung cancer, immunotherapy-related toxicities, and the intersection of chronic disease and malignancy. The scale of infrastructure was remarkable—extensive clinical trial networks, precision diagnostics, and structured survivorship programs supported by comprehensive data systems. In such environments, innovation feels continuous and seamlessly integrated into clinical practice.

Two Realities, One Disease

However, global oncology remains deeply uneven. In high-income countries, discussions often focus on optimizing molecular selection and sequencing novel therapies. In lower-resource settings, the central question may simply be whether patients can access pathology services, radiation therapy, or essential medications.

Returning to Yemen at the end of 2024 brought this contrast into sharp focus.

Dr Mohammed Safi with his advisor in the United States

Dr Mohammed Safi as Principal Investigator in China with the research team

Years of instability have profoundly strained the healthcare system. Supply chains remain fragile, workforce shortages persist, and access to diagnostic imaging and pathology services is limited outside major cities. For oncology professionals, clinical decisions are shaped as much by logistics as by biology.

Practicing Oncology Under Constraint

Dr. Anter Kaed Al-affary, Senior Consultant of Surgical Oncology and Head of the Surgical Department at Al Amal Oncology Hospital, the National Oncology Center in Sana'a, describes this challenge clearly:

"Our physicians are trained to practice evidence-based oncology, but evidence assumes infrastructure. When access to imaging, molecular testing, or consistent drug supplies is disrupted, we must adapt international guidelines to local realities. The science remains the same, but implementation is entirely different."

His words capture a broader tension. Modern oncology depends on functioning systems — reliable laboratories, safe infusion facilities, multidisciplinary tumor boards, and financial protection for patients. Without these, scientific innovation cannot translate into meaningful outcomes.

The Human Cost: Burnout and Uncertainty

The burden of working in such conditions is not only institutional but deeply personal. Chronic uncertainty regarding medication availability, electricity supply, and patient affordability accumulates over time, placing healthcare professionals at high risk of burnout.

Professor Dario Trapani, a global expert in cancer policy and Assistant Professor of Oncology at the University of Milan, offers a broader perspective:

"The rapid pace of therapeutic advancement risks widening global survival gaps unless equal emphasis is placed on implementation science and health system strengthening."

His observation highlights an uncomfortable reality: without deliberate efforts to promote equity, innovation alone may deepen global disparities.

Clarity Through Constraint

Yet the story is not solely one of limitation.

Practicing oncology in Yemen also sharpens clinical fundamentals. When resources are scarce, clinical judgment becomes paramount. Communication with patients and families deepens, and shared decision-making becomes grounded in honesty about what is realistically achievable. The core mission of relieving suffering and extending meaningful life becomes vividly clear.

Translating Evidence into Local Practice

The challenge, therefore, is not to replicate high-income healthcare systems but to translate global evidence into context-sensitive practice.

Treatment protocols often require modification based on medication availability. Multidisciplinary care may rely heavily on teleconsultation. Prevention and early detection strategies must adapt to cultural and economic realities. Even palliative care, often undervalued, becomes central when curative options are delayed or inaccessible.

Importantly, oncology professionals themselves require structural support. Sustainable healthcare systems cannot rely solely on individual dedication. Investments in training, international collaboration, and mental health support are essential to prevent long-term professional fatigue.

International partnerships offer practical pathways forward. Collaborative tumor boards, regional research networks, and guideline adaptations tailored for low- and middle-income countries can help narrow the divide. Professional societies and global institutions increasingly recognize this need, but true equity requires long-term commitment.

My journey from China to the United States and back to Yemen has reshaped my understanding of progress. Scientific discovery is indispensable, but discovery alone does not guarantee access. The true measure of oncology's success lies not only in how advanced therapies become, but in how widely and fairly they are distributed.

Cancer does not respect borders. Neither should solutions.

A Shared Responsibility

The future of global oncology depends on integrating innovation with implementation. It requires acknowledging disparities without accepting them as inevitable. It demands humility from well-resourced systems and persistent advocacy from under-resourced ones.

Ultimately, bridging the oncology divide is not about geography. It is about responsibility.

Whether in Dalian, Houston, or Sana'a, oncology professionals share a common ethical commitment: to ensure that advances in cancer science translate into tangible benefits for patients everywhere. The paths forward may differ, but the direction must remain shared.

Progress in oncology has been extraordinary. Ensuring that this progress reaches all patients regardless of where they live is the next frontier.

About the Author

Mohammed Safi, MD, PhD, is a consultant oncologist at Al-Thawrah Hospital, Hodeidah, Yemen, and a member of the Editorial Board of the *OncoDaily* medical journal.

NOVEL 4-BIOMARKER PANEL COULD HELP IDENTIFY PANCREATIC CANCER EARLIER

By Janet Fricker

Using a four-biomarker panel significantly improved the detection rate of pancreatic ductal adenocarcinoma (PDAC). The study, published in Clinical Cancer Research on January 29, showed that adding the biomarkers aminopeptidase N (ANPEP), polymeric immunoglobulin receptor (PIGR), and thrombospondin-2 (THBS2) to carbohydrate antigen 19-9 (CA19-9) improved sensitivity across all disease stages, from 82.7% with CA19-9 alone to 91.9% with the four-biomarker panel.

"To our knowledge, this is the first time a biomarker panel composed of CA19-9, THBS2, ANPEP, and PIGR has been proposed for early detection of pancreatic ductal adenocarcinoma in retrospective Phase II plasma collections from two institutions. We believe that a blood-based assay presents an opportunity for screening methods that are low-cost, minimally invasive, and low-anxiety for patients while preserving the performance characteristics necessary for early-stage detection of pancreatic ductal adenocarcinoma," write the authors, led by Kenneth Zaret, professor at Perelman School of Medicine at the University of Pennsylvania.

Why Early Detection Matters

More than 80% of PDAC patients are ineligible for surgery at the time of diagnosis because the cancer has either locally advanced to involve surrounding vascular structures or metastasised. Statistics show that when detected at a localised, early stage, the five-year relative survival for PDAC is about 44%, but once the disease has metastasised it drops to 3%. *"The major unmet need in pancreatic cancer is finding a reliable way to detect pancreatic ductal adenocarcinoma (PDAC) early, when it is resectable,"* Zaret tells Cancerworld.

While carbohydrate antigen 19-9 (CA19-9) is widely used as a standalone screening tool to monitor treatment response in PDAC patients with an established diagnosis, it falls short due to upregulation in benign conditions, such as pancreatitis and bile duct obstruction. *"Also, there are individuals with pancreatic cancer that don't have the CA19-9 biomarker in their blood, due to genetic changes limiting or preventing CA19-9 production,"* explains Zaret.

In an earlier retrospective study comparing PDAC patients with various stages of disease at the time of diagnosis and controls, published in Sci Transl Med in 2017, Zaret and colleagues showed that combining plasma thrombospondin-2 (THBS2) levels with serum CA19-9 levels could discriminate PDAC from controls with an overall specificity of 98% and sensitivity of 87%. However, a subsequent analysis of samples collected prospectively between one to 15 years prior to diagnosis, published in Cancer Prev Res in 2021, found that neither THBS2 nor CA19-9, nor their combination, was capable of sensitively predicting PDAC up to one year prior to a clinical diagnosis. *"What we did discover was that THBS2 was elevated in various patients with pancreatic cancer who didn't exhibit high levels of CA19-9, suggesting that the complementarity of the markers would help improve performance of CA19-9 alone,"* says Zaret.

The goal of the current study was to identify additional PDAC blood biomarkers that could be used to diagnose disease early.

Building a More Sensitive Biomarker Panel

For the first part, the team used mass spectrometry and enzyme-linked immunosorbent assays to identify proteins that were upregulated in plasma from cancer patients as opposed to controls. Ten plasma samples were initially pooled from patients with either confirmed pancreatic cancer, healthy individuals, and patients with benign pancreatic diseases, and were used to validate multiple candidates that arose from the mass spectrometry studies. From this investigation, the team identified polymeric immunoglobulin receptor (PIGR) and aminopeptidase N (ANPEP) as promising biomarker candidates. In the second part of the study, the team used two separate cohorts, 537 patients from the Mayo Clinic and 135 from the Hospital of the University of Pennsylvania, for detailed statistical analysis. *"We used two cohorts because we thought that the most robust candidates would appear in different sourced plasmas, not being subject to the particulars of how the plasmas were recovered, stored, and shipped,"* explains Zaret.

For the second part of the study, the team developed a panel measuring blood levels of the four biomarkers, ANPEP, PIGR, CA19-9, and THBS2 in the two cohorts. Results showed that when comparing patients with stage I-II PDAC and healthy controls, the four-biomarker blood panel showed area-under-the-curve (AUC) values of 0.97

for the Mayo cohort and 0.96 for the Penn cohort, an excellent concordance. AUC is a measure of a test's ability to distinguish between two groups, with 1.0 representing a perfect score.

The panel was also able to distinguish cancer from benign pancreatic conditions with the Mayo cohort showing an AUC of 0.87 for early-stage PDAC and 0.91 for all stages.

The four-biomarker panel correctly detected 91.9% of pancreatic cancers across all stages and 87.5% of early-stage cases. In comparison, the CA19-9 biomarker alone identified 82.7% of the PDAC cases overall and 76.2% of early-stage cases.

"Adding ANPEP and PIGR to a plasma biomarker panel of CA19-9 and THBS2 enhances the detection of early-stage [pancreatic ductal adenocarcinoma] when comparing cancer vs healthy or non-malignant [disease controls]. Given the concordance of our data in two retrospective phase II studies, assessments in pre-diagnostic cases are warranted," conclude the study authors.

The use of multi-component panels, says Zaret, is likely to offer the way forward. *"We now know that PDAC in different patients can exhibit differences in expression of genes, reflecting at least two and probably more subtypes of the disease. This means that one marker in a multi-marker test might pick up a particular subtype of the cancer that could be missed if a single-marker panel was being used."*

Towards Clinical Implementation

The current initiative is part of the Pancreatic Cancer Detection Consortium (PCDC), a collaborative research program funded and supported by the National Cancer Institute (NCI), focused on developing, evaluating, and validating innovative methods to detect PDAC and its precursor lesions at the earliest possible stages. *"Presently we are comparing our marker panel to various others, developed by different labs in the consortium, in a head-to-head performance test, where each lab tests their marker panel against the same collection of plasmas (including early disease and controls),"* says Zaret. The plan is for the best panels from the head-to-head comparison to be used on blood that the consortium is collecting for a prospective study that can determine how stable the markers are over time, and whether they increase at the time of early PDAC.

Since PDAC is a rare disease in the general population, Zaret says, biomarker screening tests are likely to have a role in patients considered at high risk due to pancreatic cysts, chronic pancreatitis, or a family history of pancreatic cancer.

Commenting on the significance of the study, **Daniel Von Hoff**, a leading authority in pancreatic cancer at the **Translational Genomics Research Institute (TGen)** part of City of Hope in Phoenix, Arizona, says, *"This is an important and carefully conducted study. It is particularly significant because it provides compelling evidence that achieving the 'holy grail' of a single blood marker for the early detection of pancreatic cancer is unlikely to be successful. Instead, the most promising strategy for earlier detection will likely involve the use of multiple biomarkers within a single blood test. It is also noteworthy that the new biomarkers were identified through a highly sophisticated and rigorously designed approach that utilised plasma samples from two independent institutions."*

The message to patients and their families, Von Hoff added, is that there are multiple NCI-sponsored teams working 'like crazy (but carefully)' to obtain an excellent test to first evaluate people at high risk of developing pancreatic cancer. "*We all know the timeline is too long. However, the test has to be very accurate so we don't try to 'chase down' something that really isn't there. We never want to be taking out any piece of a normal pancreas but we also want to make sure we don't miss a malignancy,"* he tells *Cancerworld*.

Von Hoff was principal investigator of the landmark MPACT trial, published in The New England Journal of Medicine in 2013, that led to the approval of nab-paclitaxel plus gemcitabine for metastatic pancreatic cancer.

About the Author

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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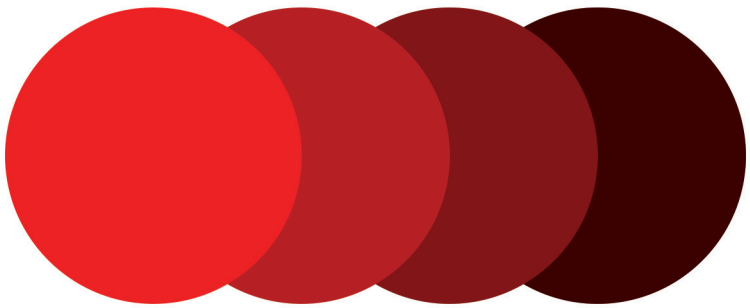

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BENTE MIKKELSEN

"Success is Something We Build Together"

By Gevorg Tamamyan

From the bedside to global reform, and why equity must be engineered, not hoped for

"I think I chose medicine because it gave all the opportunities to address people, both at a national level, but also internationally. And it's a great way of acquiring tools that actually can help people and reduce inequities in any country."

Today, Bente Mikkelsen serves as Director of Global Engagement Strategies at St. Jude Children's Research Hospital, the world's most influential center dedicated to pediatric cancer and catastrophic diseases in children. After decades of service across national and global health systems, most recently as Director of the Noncommunicable Diseases Department at the World Health Organization, where she led the shaping of the global NCD agenda, she has now brought that experience to St. Jude. Her focus is clear: to accelerate the global development of pediatric oncology and translate international commitment into measurable progress for children with cancer worldwide.

...but medicine was not her first academic choice.

Before medical school, she studied sociology, a decision that would quietly shape everything that followed. *"That was a very important part of my education,"* she explains. *"It gives you a framework to understand global public health better."*

From the beginning, she believed in a dual responsibility.
"You have one job, and then you actually have another job as well, and that is to try to improve the world from whatever position you're in."

Early Days of the Reformer

That belief led her early into student politics, and then into the Norwegian Medical Association: as a leader and reformer.

"I negotiated salaries for doctors. I was part of the leadership of the young doctors," she recalls. *"And we set up leadership programs, especially for female medical doctors."*

Together with a small group of like-minded colleagues, she helped create something that did not exist before: a structured pathway allowing medical students to pursue research and PhDs during training.

"It was possible to do a lot of changes through the medical association in Norway," she says. *"Because it's both a society and a union at the same time."*

Then came clinical medicine, and one of its most demanding forms.

Obstetrics: Where Uncertainty Trains Leaders

Dr. Mikkelsen trained as an obstetrician and gynecologist, a specialty she describes with both affection and realism.

"It was absolutely fabulous," she says. *"There was so much new development; early laparoscopy, minimal surgery, but also very little technology to help you in emergencies."*

Obstetrics, she explains, is where judgment is learned in real time.

"You have to make informed decisions, but you can never be 100% certain."

That constant proximity to uncertainty, she believes, is why so many obstetricians end up in leadership roles. *"It's part of the training,"* she notes.

Alongside clinical work, Bente became deeply involved in caring for women who had experienced sexual abuse, helping them navigate pregnancy and childbirth with dignity and support.

At the same time, she led the development of national training curricula for gynecology and obstetrics and went further, founding a European Network for Fellows in Training for Gynecology and Obstetrics, creating a shared professional identity across borders.

"It was very rewarding," she says simply.

"Every Dollar has to Work for Equity"

Her visibility and her insistence on change did not go unnoticed.

When Norway embarked on a major health reform, Bente Mikkelsen was recruited as Vice President of a regional health authority, tasked with leading a full transformation program. Soon after, she became the CEO.

Following a merger, that authority came to represent half of the Norwegian healthcare system.

She would remain in the system for eleven years, seven as CEO, years that reshaped her understanding of leadership.

"That taught me a lot about business, about boards, about economy and about the importance of economy as a quality indicator, if it's used to improve services."

Her philosophy was consistent *"Every dollar has to work for equity, both in access and in outcomes."*

The resistance was intense.

"These kinds of changes are perceived as painful both for doctors and for nurses," she recalls.

But she found unexpected allies.

"The most optimistic group was actually the patients. My best allies were the patients. They saw the need to change."

Many of the strategic frameworks introduced during those years, she notes, are still guiding the system today.

Making Research and Innovation Non-Negotiable

One of her proudest achievements during that period was shifting how healthcare systems value knowledge.

She doubled research funding from 1.5% to 3% of the total health budget and helped establish a major innovation hub through institutional mergers.

"It was at the same level as Karolinska Institute," she says, referencing the Scandinavian benchmark.

Crucially, this was not limited to university hospitals.

"It helped doctors and nurses across all hospitals feel they were part of a big improvement process," she explains. *"It stimulated their eagerness to produce knowledge."*

From National Reform to Global Health

After stepping down, she was seconded by the Norwegian government to the World Health Organization, at a pivotal moment.

Following the UN Political Declaration on Non-Communicable Diseases, WHO faced a gap between ambition and execution.

"They realized they needed someone with experience implementing big political decisions, not just in Geneva, but at the country level."

She was selected.

Initially planned as a short assignment it became something more. Encouraged by then WHO Director-General Margaret Chan she took on leadership of the NCD Global Coordination Mechanism, an unprecedented effort to bring governments, civil society, philanthropies, and even the private sector into the same conversation.

"At that time, it was almost like a complete firewall or a complete segregation between public and private sectors," she says.

It required inventing new safeguards, early conflict-of-interest frameworks and, eventually, WHO's formal approach to engagement with non-state actors.

Europe, Equity, and Scale

Her next chapter took her to WHO Europe - 52 countries, vast inequities, and immense opportunity.

"Many Eastern European countries had health systems shaped by the Soviet model," she explains. *"That meant you could work on change across several countries at the same time."*

From cervical cancer initiatives in Central Asia to hypertension programs in Eastern Europe she worked directly with countries, while also navigating the complexity of the European Commission.

Her final WHO role brought her back to the global stage as Director for Non-Communicable Diseases, Rehabilitation, and Disability, overseeing 20 programs and shepherding more than a dozen resolutions through global governance. COVID-19 changed everything.

"It wasn't only COVID itself that killed people. It was to a great extent people with heart disease, cancer, diabetes, lung disease."

For the first time governments saw unmistakably the cost of neglecting NCDs.

"It gave us an opportunity to readdress the whole agenda," she says. *"Prevention, but also health system strengthening and the need to include NCDs into preparedness and response to humanitarian crises and pandemics."*

Cancer, Childhood, and the Power of Partnership

Her transition to St. Jude Children's Research Hospital was not accidental.

At WHO, she had led three global cancer initiatives: continuing cervical cancer elimination, launching the global breast cancer initiative, and advancing childhood cancer as a global priority.

The partnership with St. Jude was different.

"It had all the components necessary for success: global leadership, regional strengthening, and real country-level implementation."

When Carlos Rodríguez-Galindo asked her to join St. Jude, the decision was immediate.

"That was a very easy choice," Bente says. "And a great honor."

What draws her most is something deeply personal.

"The fact that it's possible to see results within a time frame that I myself will be able to see."

She pauses, then adds:

"In five years, we will see great changes."

And with that, she smiles, as if already planning the work ahead.

From Declarations to Momentum: Moving Childhood Cancer onto the World Stage

When the discussion turns to the recent United Nations General Assembly, Bente Mikkelsen speaks with a calm, almost amused awareness of how prominent the moment became.

"It may look easy, but it wasn't accidental," she says, then immediately explains why it only looks that way. *"There was so much work going into childhood cancer and also sickle cell disease, for many, many years. And it had a proven effect."*

What happened at UNGA was not improvisation. It was

the result of sustained groundwork finally meeting political readiness.

"We were not asking," she emphasizes. *"We were supporting member states to propose real paragraphs on childhood cancer, and mentioning sickle cell disease in the political declaration."*

The response surprised even seasoned observers.

"It was surprisingly easy," she admits. *"So many member states rallied behind this."*

What followed was momentum and accountability.

"With all the support from civil society, including palliative care organizations, and using our St. Jude Global Alliance, it became a very powerful paragraph," she says. *"Even with a target of survival above 60%."*

That detail matters. Targets are rarely embraced in today's political climate.

"Many governments don't want to set targets," she says plainly. *"Because it's measurable accountability."*

That this one passed in today's geopolitical environment, still strikes her as extraordinary.

"I'm extremely happy that we saw this coming true."

The side event itself became a signal.

"It was the most popular side event of the UNGA," she recalls. *"There were lines of people trying to get in. Over 20 Ministers of Health wanted to speak. We had eight First Ladies attending."*

She pauses, then offers credit where she believes leadership truly mattered.

"I owe Uzbekistan, the First Lady and the Zamin Foundation, a lot of gratitude. This was a combination of governments willing to lead, strong scientific grounding, proven implementation, and civil society joining forces."

She calls it a formula, and one she hopes to replicate.

"That's a recipe for success. I hope we can take it further. I hope that next year, at the G20, we can gain even more support."

But ambition, for her, must translate into tools clinicians can recognize.

"Survival is critical," she says. *"But we also need indicators that speak to clinical work: reduction in suffering, quality of care, like we did in the Global Diabetes Compact."*

Then she smiles.

"The sky's the limit. I think we can make it."

"Nothing Is Stronger Than Success"

Asked what underpins her ability to move systems at scale, Bente Mikkelsen does not claim singular credit.

"I've been extremely privileged," she says. *"I come from a safe, inspiring upbringing: two chemists, with international connections."*

But privilege alone, she insists, explains nothing without people.

"I've been lucky to meet dedicated, fabulous people. You can never do this alone."

What gives her the greatest satisfaction is collective ownership.

"When we mobilize as a group, set goals together, and nobody remembers whose idea it was, that's the best result," she says. *"We just rally behind it and do it."*

Global Health Priorities: Making Health Non-Negotiable

When I asked about today's global health priorities, she does not hesitate, but she does widen the frame.

"We must continue to advocate for health as one of the most important things in the world."

The challenge, she notes, is not ignorance, it is displacement.

"With geopolitical stress and security concerns, governments feel pressure to prioritize military capacity. But without a healthy population societies are extremely vulnerable."

She worries about how fragile health's position has become.

"Public health is often the first thing to be down-prioritized," she says. *"And we cannot allow that anymore."*

The task ahead, in her view, is twofold.

"First, we must clearly show the consequences of inaction in a sensible, evidence-based way.

And second, we must prove that change is possible."

She returns to a principle she has lived by.

"Nothing is stronger than success."

The Next Generation

When the conversation turns to youth, her tone sharpens, not with criticism, but with urgency.

"The younger generation is the hope," she says. *"But too often they are treated as tokens."*

If institutions are serious about youth leadership, she argues, they must be willing to step back.

"We need to let young people be leaders and help them recognize themselves as leaders."

She believes this requires structural change, not slogans.

"We should encourage youth leadership across all decision-making bodies. Youth at every table. They own the future, the solutions and are the hope for a better world where everyone has equitable access to prevention and the health care services needed. We very seldom do that seriously."

THE DAY IMMUNOTHERAPY WENT OFF-PATENT

By Amalya Sargsyan

In oncology, some milestones arrive with applause. Others arrive quietly.

This year, one of the most important cancer drugs of the modern era begins to lose its monopoly. Nivolumab, one of the first PD-1 inhibitors to reach patients, is set to move off patent in major markets.

For some patients with advanced melanoma, it was the drug that turned a terminal prognosis into years of life. For others with lung cancer, it offered a second chance when chemotherapy failed and brought a cure not previously seen. For oncologists, it marked the moment the immune system long considered to blunt an instrument against cancer became a precision tool in oncology.

Now, more than a decade after its first approval, the patent protecting Nivolumab is beginning to expire in parts of the world. Biosimilars are arriving. Prices may fall. Access may widen.

For most readers, that sounds technical.

For cancer care, it is seismic.

The Drug that Changed the Curve

When Nivolumab was approved in 2014 in the United States and Japan, it validated a radical idea: that the immune system, long thought too indiscriminate to fight cancer, could be precisely redirected. Cancer exploits PD-1 as a kind of invisibility cloak. When PD-1 on an immune cell binds to PD-L1 on a tumour cell, it sends a "stop" signal. The immune system stands down. The cancer grows.

Nivolumab is an antibody designed to block that interaction. By binding to PD-1, it lifts the brake. The immune system can see the tumour again.

In advanced melanoma, five-year survival once hovered around 10–15%. With the immunotherapy revolution, survival rose toward 40–50% in pivotal trials, creating a new group of durable responders. In the final 10-year analysis of CheckMate 067, nearly half of patients treated with Nivolumab plus ipilimumab were still alive at a decade, an outcome that would once have seemed unreal in metastatic disease. (Wolchok et al, NEJM, 2025). In metastatic non-small cell lung cancer, long-term survival, once rare, became possible for a subset of patients.

In 2024, Nivolumab generated approximately **$9.3 billion** in global sales.

It became the standard of care across melanoma, lung, kidney, head and neck, bladder, and other cancers and is now approved for more than 20 indications.

From laboratory Bench to Hospital Ward

To understand what patent expiry means, we need to go back to the beginning, to how a cancer drug is born.

Most medicines start as a molecule in a laboratory. Scientists identify a biological target, such as a protein, pathway, or signal, that cancer cells rely on. In the case of Nivolumab, the target was PD-1, a receptor sitting on immune cells.

But discovering a target is only the first step.

A potential drug spends years in preclinical testing, first in cells and then in animals, before it is ever administered to a human being. If early safety data are reassuring, it moves into.

Phase 1 clinical trials typically involve a few dozen patients, while Phase 2 expands the cohort to explore activity signals. Phase 3 trials often enrol hundreds or thousands across multiple countries, comparing the new drug to the standard of care.

From laboratory discovery to regulatory approval, the journey often takes 10 to 15 years. The cost, when accounting for failed candidates along the way, is commonly estimated at over $1 billion.

At the moment a company files for patent protection, often early in development, the 20-year patent clock begins ticking.

By the time the drug is approved, a decade of that exclusivity may already be gone.

The Meaning of a Patent

A patent is not simply a legal formality. It is a period of market exclusivity, a monopoly granted in exchange for

public disclosure of the invention.

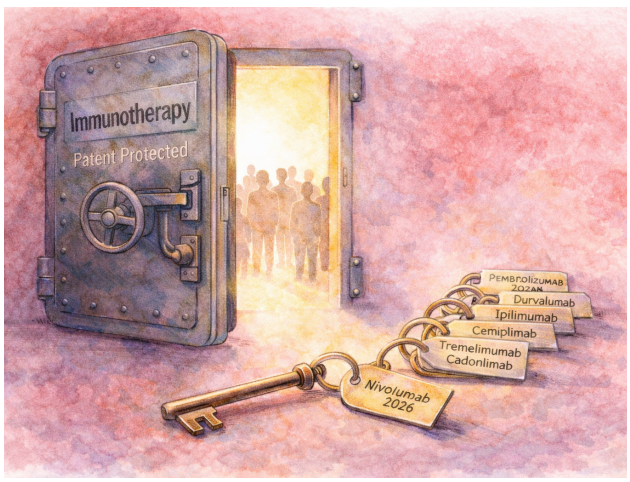
During that time, no other company could manufacture and sell the same molecule without permission.

For small-molecule tablets, when patents expire, generic copies usually appear quickly, and prices can collapse by 80 or 90 percent.

Checkpoint inhibitors are different. They are biologic medicines of complex proteins grown inside living cells. They cannot be copied identically. Instead, competitors develop "biosimilars": highly similar versions that must demonstrate no meaningful clinical differences in safety or efficacy.

They are not shortcuts. Developing a biosimilar antibody can cost 100–300 million $ and take seven or eight years.

But when they arrive, competition begins.



Nivolumab: The First Domino

First introduced in 2014 in the United States and Japan, Nivolumab's exclusivity period is now ending.

In Europe, basic patents for Nivolumab expire around 2026, while supplementary protection certificates and paediatric extensions may extend effective market exclusivity in some countries towards 2030. In the United States, key patents are expected to expire between 2027 and 2028. In India, the key Nivolumab patent is due to expire in May 2026, but a Delhi High Court decision in January 2026 allowed Zydus to market a Nivolumab biosimilar, effectively enabling early competition.

The price difference was striking: a fraction of the originator's cost.

It is a glimpse of what could follow elsewhere.

The Larger Wave Behind It

If Nivolumab is the first domino, Pembrolizumab is the largest.

Pembrolizumab, approved the same year, became the world's best-selling cancer drug. In 2024, it generated nearly $30 billion, an extraordinary figure that reflects its use across more than 40 indications.

Its US patent protection runs to 2028; European exclusivity extends to 2031 in some countries. More than a dozen biosimilars are already in development.

Together, PD-1 and PD-L1 inhibitors represent over $50 billion annually in global spending.

This is not a marginal shift. It is one of the largest patent cliffs oncology has ever faced.

What History Suggests Will Happen

We have seen this story before, though never on this scale.

When trastuzumab lost exclusivity, biosimilars entered European markets rapidly. Within a few years, they captured the majority of the market share. Prices fell by roughly 50 per cent in many settings — more in some national procurement systems.

In the United States, uptake was slower but ultimately substantial.

The same pattern followed with bevacizumab and rituximab.

Checkpoint inhibitors are more complex, but the economic dynamics are similar. Even two or three competing biosimilars can create downward pressure on price. With a crowded field expected for pembrolizumab, discounts of 30 to 50 per cent over time are plausible.

Not overnight. Not uniformly. But meaningfully.

What it Could Mean for Patients

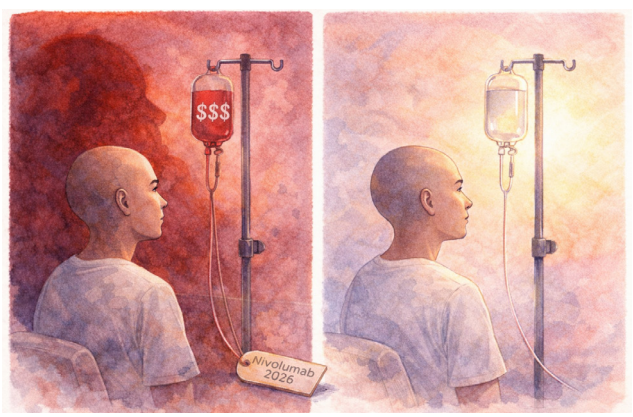
For patients in wealthier nations, the change may feel subtle at first. Formularies will adjust. Hospitals may negotiate. Physicians will reassure patients that a biosimilar is not an inferior product but a rigorously evaluated equivalent.
For patients in lower- and middle-income countries, the implications are more profound.

Today, access to checkpoint inhibitors remains deeply unequal. In many regions, they are unavailable in public systems or accessible only to those who can pay privately. Yet roughly 70 per cent of global cancer deaths occur in these settings.

If biosimilar competition drives substantial price reductions — and if governments reinvest savings into oncology budgets — the reach of immunotherapy could expand dramatically.

Access, however, is not simply about price. It requires infusion centres, trained oncologists, pathology services capable of PD-L1 testing, and reliable supply chains.

The drug is only part of the equation.



The Access Gap

Today, an estimated **22% of eligible patients globally** receive PD-1 or PD-L1 inhibitors. Access is concentrated in high-income countries (Tay-Teo, Lancet, 2025).

Meanwhile, **70% of cancer deaths occur in low- and middle-income countries,** according to the American Cancer Society.

Annual treatment costs in the United States often range between **$100,000 and $150,000** per patient. In parts of sub-Saharan Africa, checkpoint inhibitors are largely unavailable in public systems.

In 2025, the World Health Organization added pembrolizumab to its Model List of Essential Medicines for selected indications. WHO modelling suggests biosimilar competition could reduce prices by up to **60%**.

If paired with procurement reform and health system investment, coverage could theoretically rise from 22% to as high as 75%.

But price is only one barrier.

Checkpoint inhibitors require infusion centres, cold-chain storage, pathology services for PD-L1 testing, and trained oncology staff. Many health systems lack all of these.

A cheaper drug does not automatically mean access.

A Quiet Revolution

Patent expiry rarely makes front-page news.

There is no applause in a hospital pharmacy committee meeting.

Yet the loss of exclusivity for Nivolumab marks the beginning of the largest economic transition immuno-oncology has ever faced.

Science succeeded and the survival curves changed.

Now comes a different test: whether a revolution in biology can become a revolution in equity.

For patients who have watched immunotherapy transform outcomes from afar — visible in journal articles but out of financial reach, this chapter may matter as much as the first approval in 2014.

The day immunotherapy went off-patent may prove to be the day it finally became global.

About the Author

Amalya Sargsyan MD, MSc in Precision Medicine, GI and Sarcoma Medical Oncologist at Yeolyan Oncology and Hematology Center and D'Clinic, Clinical Research Physician at Immune Oncology Research Institute, Head of Intelligence Unit at OncoDaily.

European School of Oncology

College Member

TRANSLATING GLOBAL EXCELLENCE INTO LOCAL IMPACT

DR FATJONA KRAJA AND THE CHALLENGE OF TRANSFORMING RADIATION ONCOLOGY IN ALBANIA

By Knarik Arakelyan

Radiation oncology is one of the most technologically sophisticated and intellectually demanding disciplines in modern medicine. Yet, for Dr Fatjona Kraja, newly appointed Faculty member of the **European School of Oncology (ESO) College**, the field is defined not only by scientific precision, but by its ethical responsibility to ensure equitable, patient-centred cancer care — regardless of geography.

"Access to advanced radiotherapy should not depend on where a patient lives," she says. *"My professional mission has always been to translate global standards into meaningful improvements for patients at home."*

Her journey from early clinical training in Albania to advanced oncology centres across Europe and the United States reflects a broader vision: building sustainable systems, embedding quality culture, and strengthening human-centred oncology.

From Local Constraints to Global Training

Dr Kraja began her clinical career in 2014 at the Radiotherapy Unit of the University Oncology Clinic, University Hospital Center Mother Teresa in Tirana, shortly after completing her specialization in Clinical Oncology. At the time, radiotherapy services in Albania were constrained by limited access to advanced technologies, contemporary planning techniques, and structured quality assurance frameworks.

"Recognising the gap between local practice and international standards motivated me to seek further training abroad," she explains. *"My goal was not simply personal development, but to bring back knowledge, structure, and institutional culture that could meaningfully improve patient care."*

Her academic and clinical path led her to leading oncology centres, including the Istituto Nazionale dei Tumori, the European Institute of Oncology, and the National Centre for Oncological Hadrontherapy in Italy, followed by a six-month Fulbright Scholarship in the United States at the University of Kansas Cancer Center, a National Cancer Institute-designated Comprehensive Cancer Center.

"What impacted me most was not only the technological sophistication," she recalls, *"but the way systems functioned: multidisciplinary tumour boards, protocol-driven planning, embedded quality assurance, continuous audit, and systematic outcome monitoring. These elements transform technology into reliable, high-quality care."*

These experiences reshaped her perspective on healthcare development.

"I realised that improving oncology is not simply about acquiring equipment. It requires governance, structured training pathways, interdisciplinary collaboration, accountability, and leadership. Technology without system design cannot deliver its full benefit."

Precision Medicine Grounded in Human Experience

Radiation oncology's distinctive integration of medicine, physics, and radiobiology has always appealed to Dr Kraja. Yet, beyond its scientific complexity, the field's emotional intensity has profoundly shaped her professional identity.

"What drew me specifically to radiation therapy was the precision it demands — translating radiobiological principles into millimetric accuracy while optimising the therapeutic ratio between tumour control and normal tissue protection."

At the same time, she emphasises the uniquely human dimension of the discipline.

"Radiation oncology allows sustained interaction with patients over weeks of treatment. You witness vulnerability, resilience, fear, and hope in close proximity. This creates a deep responsibility: technical success means little if quality of life is compromised."

This dual commitment to scientific rigor and patient-centred care underpins her strong focus on toxicity mitigation, survivorship, and quality-of-life research.

"Survival curves are essential, but they do not capture the full experience of cancer care. Every dose constraint represents a preserved function. Every contour represents a person."

Translating International Experience into System Change

Returning to Albania, Dr Kraja focused not on replicating high-resource models, but on adapting international best practices to local realities. Recognising that sustainable progress requires structural change, she prioritised protocol-driven planning, contouring standardisation, strict dose-constraint adherence, and the introduction of peer-review culture.

Among the most tangible clinical improvements was the expansion of IMRT-SIB and hypofractionation protocols, particularly in genitourinary and gastrointestinal cancers, resulting in improved toxicity profiles, better functional outcomes, and strengthened confidence in organ-preservation strategies.

"Technology alone does not transform care," she emphasises. *"What truly matters is disciplined implementation of standards, structured workflows, peer review, and continuous outcome measurement."*

Equally transformative has been the integration of patient-reported outcome measures, including validated EORTC quality-of-life instruments, into routine clinical evaluation.

"Patient-centred oncology means systematically measuring what matters to patients function, symptoms, and wellbeing, not only survival."

Introducing innovation locally, however, has not been without challenges.

"Resource limitations, institutional inertia, and cultural resistance to change are common barriers," she acknowledges. *"Meaningful progress requires patience, diplomacy, collaboration, and the gradual building of internal expertise."*
Her approach has been to embed change through evidence, transparency, and professional engagement rather than imposition.

"Sustainable improvement depends on collective ownership, not individual authority."

ESO College: Educating a New Generation of Oncologists

Dr Kraja's appointment as **Faculty member of the European School of Oncology (ESO)** College marks a significant milestone in her academic and leadership journey. In this role, she brings her international perspective into oncology education, emphasising scientific reasoning, adaptability, and ethical responsibility. She is also Lecturer of Oncology at Faculty of Medicine, University of Medicine Tirana.

*"I teach young oncologists to think critically. Understanding **why** we make clinical decisions is as important as knowing **how** to execute them."*

Her educational philosophy centres on three core pillars: **rigorous scientific reasoning, system-based practice, and patient-centred outcomes.**

"I want trainees to appreciate radiobiological principles, therapeutic ratio optimization, and evidence hierarchy. But I also want them to understand workflows, quality assurance, toxicity monitoring, and survivorship planning as part of their professional responsibility."

Global exposure has also shaped her emphasis on adaptability.

"Precision medicine must be scalable. Excellence is not defined by technology alone. It is reflected in contouring accuracy, protocol adherence, peer review, and toxicity mitigation , principles that apply across all healthcare settings."

Central to her mentoring is the human dimension.

"Every contour represents a person. Every planning decision has lifelong consequences. That perspective must be instilled early."

Leadership Beyond the Clinic

Over the course of her career, Dr Kraja has evolved from a clinician to a system-level leader, increasingly engaged in governance, education, research development, and healthcare reform.

"Leadership in oncology means building environments where excellence becomes standard and accountability is embedded in daily practice."

Her involvement in international research networks, professional societies, and educational platforms aims to strengthen Albania's oncology system while embedding local practice within global oncology discourse.
"International collaboration accelerates system development. It enables knowledge transfer in quality assurance, multidisciplinary integration, survivorship care, and institutional governance."

She views fellowships, exchanges, and joint research initiatives not as personal milestones, but as strategic investments in sustainable healthcare development.

"The real value of international experience lies in what you bring back — standards, culture, accountability, and vision."

Shaping the Future of Radiation Oncology

Looking ahead, Dr Kraja aims to expand image-guided and adaptive radiotherapy, SBRT and biologically informed planning, and integrated strategies combining radiotherapy with immunotherapy. At the same time, she remains deeply focused on institutional culture.

"Machines evolve rapidly. Systems evolve slowly. Sustainable progress depends on training, governance, peer review, outcome monitoring, and ethical leadership."

Her professional philosophy encapsulates the synthesis of science and humanity:

"Precision guided by science, delivered with responsibility, and always centred on the patient."

Through her work as clinician, educator, and system builder, Dr Fatjona Kraja exemplifies how international experience, when thoughtfully translated, can drive lasting improvements in cancer care ,offering a model for healthcare systems seeking to bridge innovation with equity.

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, and serves as PR and Communications Officer at "EMERTÉ" Clinic.

LIVED EXPERIENCE OF PEOPLE AFFECTED BY CANCER

By Adrian Pogacian

Too Much Hope is a False Hope

K. still remembers the moment she heard the diagnosis. The room felt suddenly smaller, the air heavier, and time strangely suspended. *"You wake up in a void, alone and scared,"* she says. *"But you can still choose to climb out, to ask for help."* That choice, she believes, saved her life — not only physically, but emotionally.

In the world of psycho-oncology, where professionals and patients debate how much hope is helpful and when hope becomes a burden, K. 's experience raises a fundamental question: **when cancer enters a person's life, is hope truly the first emotion, or is it fear?**

This remains a contested issue in psycho-oncology, as both patients and healthcare professionals hold differing views on how much hope is healthy — and when it risks becoming false reassurance.

But is hope really the first thing a cancer patient thinks about, or is it fear? I believe this is the central question when exploring the lived experience of cancer. The *"lived experience of people affected by cancer"* refers to the experience of living with or having lived through cancer, including treatment, recovery, and long-term survivorship, as well as supporting others through the disease. The psychosocial impact of cancer encompasses interconnected psychological, social, and financial

dimensions (Schilstra et al., 2025).

Emotional Resilience, Social Support, and Psychological Transformation

"The diagnosis doesn't prepare you, it confronts you with reality. You wake up in a void, alone and scared. But you can still choose to climb out, to ask for help," K. once said during a counselling session. A young woman marked by prudence and optimism, she had long hidden the emotional scars of her painful journey. Yet, she grew stronger once she chose to seek help, giving meaning to her suffering. She learned to exercise her freedom of will and the power to choose and began searching for answers to the haunting question of *Why me?*, navigating a new reality shaped by identity, meaning, and legacy.

K.'s experience shows that the psychological, psychosocial, and behavioral consequences of cancer can no longer be ignored. Psychological distress, anxiety and depression, often becomes a source of deeper suffering than the disease itself. Cancer treatments, while life-saving, profoundly disrupt patients' physical, emotional, and social lives.

She came to understand that cancer is not merely a personal struggle, but a collective one. *"In my fight with the illness, I surrounded myself with people who encouraged me, who lifted me when I needed it, and who pushed me to keep going. They didn't let me fall, and I didn't let them fall either. By the end of treatment, none of us were the same anymore."* The past she once knew no longer exists, the future feels uncertain, and the present moment is all that truly remains.

Emotions are a vital form of communication both with ourselves and with others. There is nothing more harmful than suppressing inner feelings. Emotions motivate us, help us act, and allow us to overcome obstacles. Yet, as human beings, we often avoid confronting them. K. had no such luxury. As she explained, survival meant facing uncertainty daily, never knowing what the next morning might bring.

The lived experience of cancer encompasses profound physical, emotional, and social transformations, from diagnosis to survivorship and beyond. These changes reshape daily life, relationships, professional roles, and even personal identity often prompting individuals to search for or rediscover life's meaning, as Viktor Frankl described.

Hope and Fear in Clinical Communication: Finding the Balance

Hope serves as an inner source of motivation, guiding individuals toward goals and resilience. It supports meaning-making, self-esteem, and emotional adaptation, helping patients withstand the psychological strain of illness.

But what happens when hope collides with fear? Can they coexist? Humans often fall into "all-or-nothing" thinking either hopeful or hopeless, brave or terrified. Yet, we possess the capacity to experience complex emotions simultaneously. "Cancer is not a disease you can carry on your own," K. repeats in almost every therapy session. She is right. Therefore, we must learn to accept fear while nurturing hope.

As medical oncologists and psychologists, we consider ourselves healers, yet we cannot avoid delivering painful truths. Patients need to be heard, understood, and emotionally supported. "*When you go through something like this,"* K. reflects, *"it matters enormously that medical staff show empathy, patience, and understanding."*

Nevertheless, healthcare professionals often struggle with the fear of extinguishing hope, which can hinder open communication. Managing their own emotional reactions, the patient's tears, fear, and suffering along with feelings of professional inadequacy, becomes a profound challenge. Ultimately, effective communication requires balance: between clarity and compassion, honesty and empathy, realism and hope. Because **no matter how blue life becomes, hope always has a hue.**

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About the Author

Adrian Pogacian, PhD, is a licensed clinical psychologist with advanced training in psycho-oncology. His expertise is in Coping with Cancer, Complicated Grief, Posttraumatic Growth and Meaning-Centered therapy approach.

"HOPE IS CONSTANT"

FROM ISOLATION AND FEAR TO CONNECTION, PURPOSE, AND GLOBAL IMPACT

By Kevin Donaghy

Hope as a Guiding Mantra

One of my friends, a retired oncology nurse in Scotland, where I live, has become a source of hope for my family and me, and her words have become a mantra: hope is constant.

Prior to my diagnosis of stage 4 metastatic melanoma in December 2019, my hope was perhaps pedestrian and mirrored that of most of my friends and family: hope that our children would do well at school, that my career would progress, and that the weather would be kinder than it is in Scotland for our summer vacation.

Suddenly, hope had changed color, shape, and texture, and was centered around immunotherapy, which I had never heard of. I hoped this relatively new treatment would enable me to see our children attend and graduate from university, and that we would have time to see friends and family in case I didn't respond.

Facing the Data and Uncertainty

Working in IT, I'm surrounded by data, statistics, and probability. When I sat in the sterile oncologist's office, trying to process what I had just been told that I had a tumor on my right lung and one next to my spine, which had been causing my back pain that quickly led to X-rays and a CT scan I asked him if he had any data on the effectiveness of my planned treatment.

Being already in shock and trying hard to focus on what the oncologist said, I was even less prepared for the Overall Survival chart he showed me, which made for very bleak reading in the first twelve months but painted a picture of hope after three years.

How was I to convey this news to my wife, mother, sisters, and teenage children just a few days before Christmas? I had made the worst decision of my life by not asking my wife to accompany me to the oncologist. Eighteen months previously, I had been told that my stage two melanoma had been successfully removed from my forearm and hadn't spread to my lymph nodes. How could I pass on this news without my voice breaking, tears falling, my legs failing me, or my heart breaking, thinking about what we could all miss if I died?

Christmas seemed like a blur, with everyone knowing it could be the last one we'd all spend together. As we entered 2020, our plan was to spend as much time with friends and family as my treatment would permit and hopefully travel to our favorite destinations.

Isolation, COVID, and Mental Health Struggles

2020 had other plans for us. Due to COVID, I was placed in the high-risk category due to being immunocompromised, and every day became a routine of avoiding any situation where I could encounter infection. I was unable to see anyone outside our household for months on end.

The physical impact of my treatment was overshadowed by a severe mental impact, not just on me. Given the likelihood of my treatment being unsuccessful, combined with COVID restrictions, my mental health deteriorated even further, and my sense of isolation became overwhelming.

Finding Strength Through Community

At this point, I decided to seek out other people with melanoma who were going through a similar experience. Thankfully, I found an online melanoma group in the UK, where patients supported each other via Zoom. Following my first Zoom call, my wife remarked that she hadn't seen me so happy since my diagnosis. Being able to talk to others who shared their stories and listened to mine, and understood how I felt, gave me immense hope.

The Birth of "Stories of Cancer and Hope": From Idea to Impact

I've always had an interest in other people's stories, and hearing strangers share their deepest fears and hopes while supporting me inspired me to collect and share other people's cancer stories.

Following my successful treatment, I started to collect "Stories of Cancer and Hope," with the ambition to share them as widely as possible to help others affected by cancer not feel alone. My original ambition was to produce a hardback book that could be read and then shared. If I could obtain sponsorship to fund its production, I could donate 1,000 copies to cancer charities and treatment

centers in the UK. With the help of family, friends, sponsors, and story contributors, we created the book and to date, have donated 8,000 hardback copies of "Stories of Cancer and Hope" to 90 cancer charities and treatment centers in the UK and Ireland.

Our book contains stories from 39 people, including oncology professionals, pharmaceutical professionals, people living with cancer, and those who have lost someone to cancer, as not all cancer stories have a happy ending.

Voices of Gratitude and Healing

We regularly receive feedback from patients and oncology professionals on the positive impact of our book. Here are just two examples:

"The last thing I wanted to do was read about cancer – I wanted to get away from it! How wrong was I! About halfway through my treatment, I picked up the book and started to read some of the stories. I cannot believe the strength that people develop to overcome this awful disease. I now feel I am part of that community and developing the strength I never thought I had. Thank you so much to the author and to all the brave people who contributed to this book. It really is helping me as I continue my battle." — **UK Cancer Patient**

"This book is great at focusing on the patient behind the disease process; they are deeply personal, and they are something I would want all my nurses to read. For me personally, the book helped me focus on why I do what I do, who I do it for, and the stories behind the treatments. I will encourage all my staff to read it regularly." — **Head of Day Oncology Centre, United Kingdom**

Stories of Cancer and Hope was launched for sale in 2024 and it is currently available for sale in hardback and digital form around the world, with all royalties going to the UK cancer charity, Maggies, who have 27 locations in the UK and 4 outside the UK.

We know that our stories of hope are spreading and bringing light where perhaps darkness lurks.

About the Author

Kevin Donaghy lives with his family in the Scottish Borders. He has spent his career in IT services and IT consulting. Now living with incurable cancer, he has worked with several cancer charities in the UK, for whom he promotes causes and raises money, including donations from the sales of his book. He has travelled the country, taking "Stories of Cancer and Hope" directly to the doors of various charities and people affected by cancer.

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