A Message from the Editor-in-Chief

Dear Readers,

Welcome to the latest issue of «M for Medics,» where our mission is to connect and collaborate with medical professionals across United States of America, UK, Poland, Switzerland, Israel, Singapore and Japan. We are dedicated to bridging the gap between advanced medical practices and healthcare services, fostering a global community of medical excellence.

In this issue, we bring you exclusive interviews with leading experts from various fields of medicine. By uniting the Top Doctors and innovative minds promoting MedTech, we aim to create a vibrant network of collaboration and knowledge exchange. Through our extensive network and events, we facilitate interactions that drive growth, innovation, and shared learning. Each issue features interviews with esteemed doctors, including renowned Harvard Medical School Alumni, showcasing their expertise and contributions to the field.

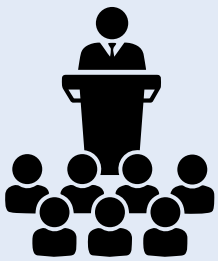
At «M for Medics,» we believe in the power of connection. Our platform allows doctors to network, share their knowledge, and support each other. By providing a space for these interactions, we hope to inspire collaboration that transcends borders and enhances patient care globally.

We are also passionate about promoting the most innovative medical technologies through our #MedTechPremium initiative, highlighting advancements that have the potential to transform healthcare and improve patient outcomes.

«M for Medics» is available as a PDF, ensuring our cutting-edge content is accessible to medical professionals worldwide. As you read through this issue, I hope you find inspiration in the stories and innovations featured. Together, we can shape the future of healthcare.

Thank you for joining us on this journey.
Warm regards,
M.

Allow me to introduce myself: I am Magdalena Kucharska, your Editor-in-Chief. I hold a master's degree in Healthcare Management from the Medical University of Warsaw and have completed the HMX Fundamentals course at Harvard Medical School, obtaining certificates in pharmacology and immunology. Additionally, I have pursued studies on Artificial Intelligence in Healthcare at Stanford University School of Medicine. I am passionate about psychology and understanding people's mindsets. I have a great sense of humor and love engaging conversations.



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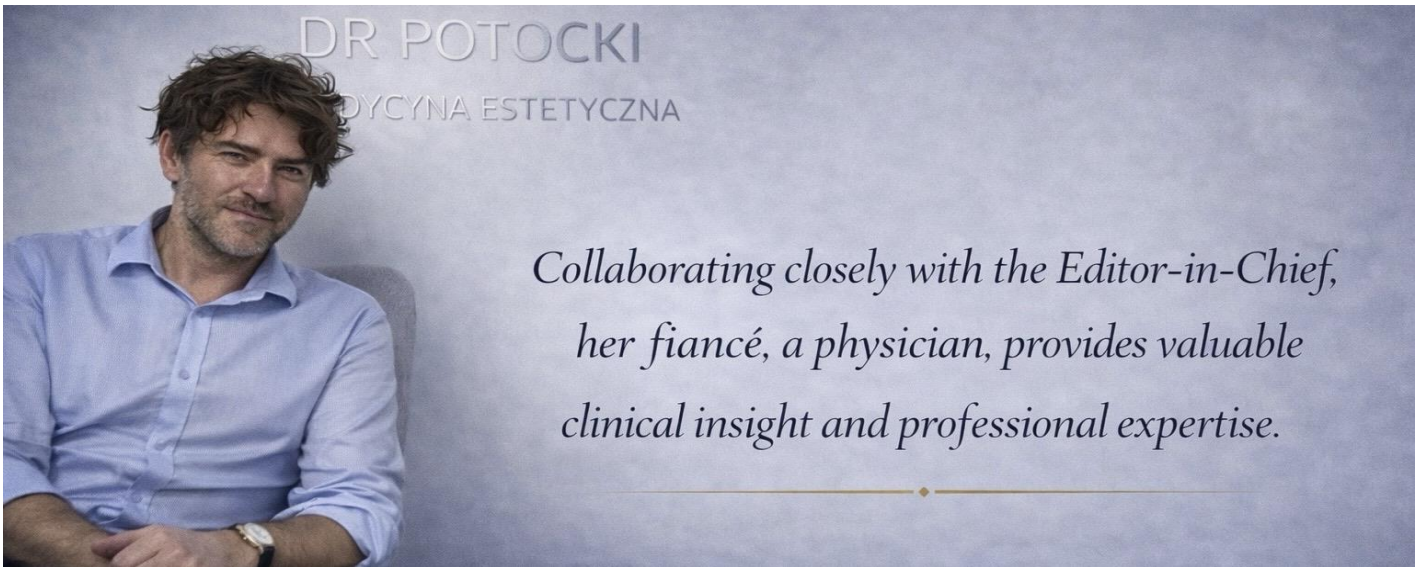

Collaborating closely with the Editor-in-Chief, her fiancé, a physician, provides valuable clinical insight and professional expertise.

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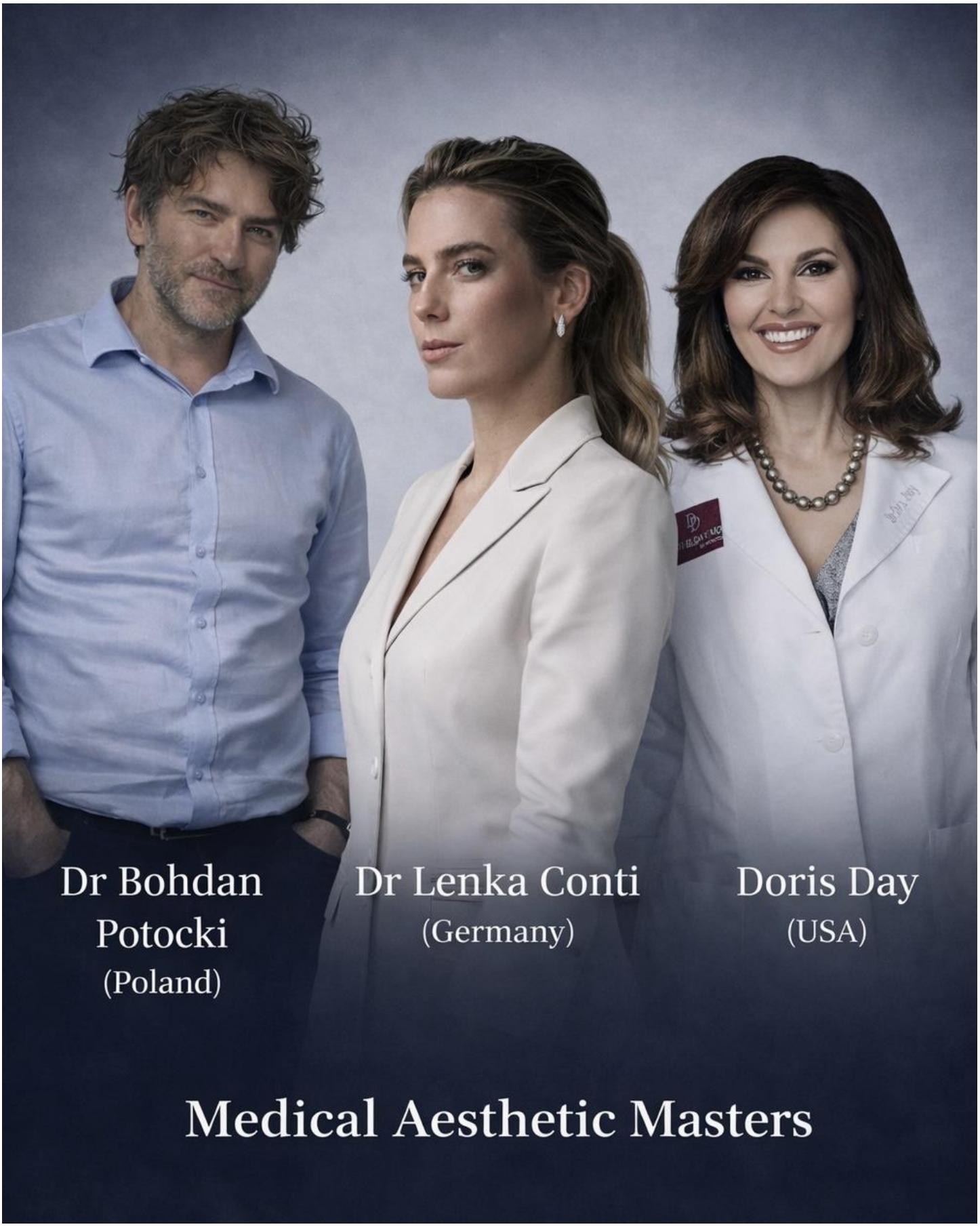

Dr Bohdan Potocki
(Poland)
Dr Lenka Conti
(Germany)
Doris Day
(USA)
Medical Aesthetic Masters

Aesthetic Medicine and Dermatology

Dr. Lenka Conti is a board-certified dermatologist specialized in aesthetic medicine, skin regeneration with focus on longevity and anti-aging. She integrates clinical expertise with an evolving perspective on innovation and health care strategy. Her work focuses on evidence-based rejuvenation, advanced aesthetic medicine, cellular repair, and client-centered models of dermatological care.

Your career uniquely bridges aesthetic dermatology, regenerative medicine, and business strategy. What inspired you to merge these worlds into one professional vision?

Merging these worlds was never a single decision, rather a logical progression of how I think, learn, and want to contribute. I have always had an analytical brain that naturally gravitates toward complex systems. I like learning, questioning, and understanding things on a deeper level, and I'm not afraid of reflective judgment. That curiosity guided me from the very conservative structure of the German medical system through university clinics, into two specialties, and finally into aesthetic dermatology. Along the way, I realized how dramatically different the worlds within medicine actually are.

Regenerative medicine and aesthetic dermatology are my focus right now because I'm drawn to prevention and to understanding aging, skin diseases, and inflammation on a cellular level. This is the part that excites the doctor in me. The business side developed from working across many different systems. I saw how massive clinics function with extreme regulation and how the aesthetic field operates almost with none.

I became curious about why some systems work and others don't, why some practitioners thrive while others burn out their people, why certain patient pathways create value and others create frustration.

At some point, this curiosity about business became a natural part of my development as a professional in my field. I am convinced that in modern medicine, you can't ignore the system you work in. Understanding how it functions, where it fails, and how to innovate within it is essential; both for high-quality patient care and for long-term satisfaction of the doctors working inside it.

You recently completed the Disruptive Strategy program at Harvard Business School. How has this experience influenced your understanding of innovation within aesthetic medicine?

Failures in disruption are seldom due to shortage of ideas. Setbacks happen because of the systems that choose which ideas survive. In aesthetic medicine, many organizations operate within structures built for efficiency

and predictability, not for learning. These structures reward optimizing what already exists rather than exploring new directions.

Instead of taking yet another medical course, I wanted to understand *why* this happens, why medicine, especially aesthetics, sometimes struggles to innovate. I've followed Clay Christensen for years, not only for his insight into business strategy but also for his integrity as a human being. Taking this course was both a personal wish (a long-held dream to experience Harvard) and a professional step toward understanding how real change is created.

The program helped me see how certain business structures block innovation even when the people inside them mean well. It gave me the language and tools to recognize what kind of environment allows ideas to grow and where values truly align with progress. After completing it, I decided to resign and pursue a direction that feels more authentic, one where exceptional quality, ethics, and innovation can genuinely coexist.

At Harvard, "disruption" often means reshaping established models. Where do you see the most room for disruption and transformation in aesthetic and regenerative medicine today?

Every industry that experiences rapid growth before clear standards emerge goes through a "wild west" phase. Aesthetic medicine is in that phase now, where access and marketing have advanced faster than governance, ethics, or education. This gap is where both the danger and the opportunity for disruption lie. The field is dominated by sustaining innovation. But what it truly needs is foundational innovation; redefining what value in aesthetics actually means. If the purpose of aesthetics is only to satisfy immediate demand, the system will naturally reward volume over wisdom. But if the purpose is to enhance long-term health and confidence through regeneration and ethical care, then the whole model changes.

When that shift happens into a trust-based infrastructure, integrating disciplines instead of sustaining the old system, aesthetic medicine will stop competing on visibility and start competing on integrity. That's the kind of disruption that truly transforms a profession.

Having practiced in leading clinics across Germany, how would you describe the current landscape of aesthetic medicine there - both in terms of patient demand and professional standards?

The demand for aesthetic treatments in Germany is enormous and continues to grow across all age groups. Some clients know exactly what they want and have been maintaining treatments for years; others are just beginning and still exploring what's possible. What's clear is that curiosity, openness, and the wish to look and feel better are higher than ever.

The challenge is that these growing demands meet a system that isn't fully prepared for it. There are excellent, highly qualified doctors and clinics doing incredible work, and there are also places operating without enough depth, scientific background, or long-term thinking. For patients, it can be difficult to see the difference. This is what happens when an industry scales without a coherent value network. The inputs; education, regulation, research, and patient expectations, haven't yet aligned around a shared definition of value.

As a result, the market rewards visibility more than verified outcomes. Clinical research in aesthetics is developing but still limited, and we lack long-term data on many treatments, which makes predictions about results or complications more difficult. We are in an exciting and rapidly expanding field, but one that needs more transparency, more patient education, and a stronger scientific foundation to match the level of public interest it already receives.

What key trends are driving the growth of the German aesthetic market, and where do you see the most dynamic opportunities emerging?

The demand is coming from all directions. Minimally invasive treatments still lead the field, especially injectables, skin boosters etc. Body contouring, liposuction, and fat-reduction procedures have also become increasingly common, partly because obesity and lifestyle-related conditions are on the rise.

The most dynamic opportunities, as I see them, will come from a more individualized and health-oriented approach

- one that connects aesthetic procedures with regeneration, lifestyle, and prevention. Patients want more than short-term results; they want to understand why their skin or body is changing and how to support it long-term. That's where I see the future: in combining medical depth with personalization, responsibility, and science-based innovation.

In your opinion, what gaps still exist in Germany - for instance in advanced training, knowledge exchange, or interdisciplinary collaboration - that could be addressed by new educational or networking initiatives?

In any system, the quality of outcomes depends on the quality of learning loops - how knowledge is created, shared, and improved. The German medical system, while strong in clinical standards, still lacks efficient mechanisms for knowledge transfer after formal education. Once medical students leave university and become doctors, they enter organizations that are optimized for service delivery, not for learning.

Compared to medical training in countries like the UK, US, or Australia, our training pathways are often less structured and less supported. That's a serious issue, because you can't expect a high standard of medicine without creating a high standard of learning. In aesthetics, this becomes even more visible because the field grows so quickly.

There is enormous potential for improvement in mentorship, interdisciplinary exchange, and continuous professional development. Creating spaces where doctors learn from each other instead of competing and where collaboration and ethics guide the structure. That would be a major step forward for the entire system.

The German market is known for its precision and medical rigor. How do you balance that scientific excellence with the creative side of aesthetics and individualized beauty concepts?

When people describe the German market as precise and medically rigorous, the question is what kind of precision they mean. In engineering - cars, machines - precision is mechanical and measurable. In medicine, it is human. It requires judgment, timing, restraint, and understanding a living system, not a production line,

In many aesthetic clinics, however, "precision" has quietly become a business term: following protocols fast and keeping the main metric profit-high. That pressure to constantly produce results leaves little space for high-quality, individualized work. Skin has its own rhythm; real precision means knowing when to act and when to wait. What we're facing is a form of performance overshoot: the system keeps improving efficiency on the wrong metrics. When the purpose shifts from healing to production, genuine creativity disappears because there is no room for learning or reflection.

The opportunity for transformation lies in redefining rigor itself. Scientific excellence and creativity coexist when precision is measured not by speed or volume, but by the integrity of decisions made with respect to biology.

From a business perspective, what distinguishes clinics or practitioners who succeed long-term in such a competitive and rapidly evolving field?

The clinics and practitioners who truly stand out are the ones who firstly diagnose the real competitive challenge. Instead of assuming the market is overcrowded or trend-driven, they look at the deeper structure. Successful clinics understand that the real challenge isn't demand - it's differentiation through credibility. Secondly, they set a guiding policy that creates distinctive advantages. This is where many fail, because a guiding policy requires saying no to a lot of things. The clinics that thrive choose a clear identity and stick to it. For some, it's uncompromising medical quality. For others, it's natural rejuvenation or a holistic long-term approach to skin health. Whatever the choice, it provides direction. It tells the team what matters and just as importantly, what does not.

Lastly, their actions are coherent, not scattered. They avoid weak strategies that look like impulse: buying every new device, copying trends, or trying to serve every type of patient. Strong clinics build a system in which every decision reinforces their chosen direction. Their training, technology, communication, pricing, and patient experience are all aligned. Nothing contradicts the identity they have committed to, they are uniform.

In a market as competitive as aesthetic medicine, coherence becomes a competitive advantage in itself. The clinics that succeed long term are not the loudest, but the most disciplined. They understand what game they are playing, and they play it with clarity.

How important is global collaboration - between doctors, scientists, and entrepreneurs - for shaping the future of aesthetic medicine and regenerative technologies?

Innovation seldom emerges in isolation. Breakthroughs occur when existing systems confront knowledge that doesn't fit their current logic. Global collaboration is the mechanism that brings such non-confirming knowledge into view.

In aesthetic and regenerative medicine, the pace of advancement is asymmetrical. Some countries lead in biotechnological applications and consumer adaptation, while others lead in clinical regulation and safety. Integrating these strengths through open collaboration allows the industry to move from regional optimization to global innovation.

The convergence of doctors, scientists, and entrepreneurs is therefore not optional - it's structural. Each group holds a different piece of the innovation puzzle: science provides discovery, medicine ensures safety, and entrepreneurship scales impact. When these groups interact transparently across borders, the result is sustainable progress, innovation that serves our clients, not just the market.

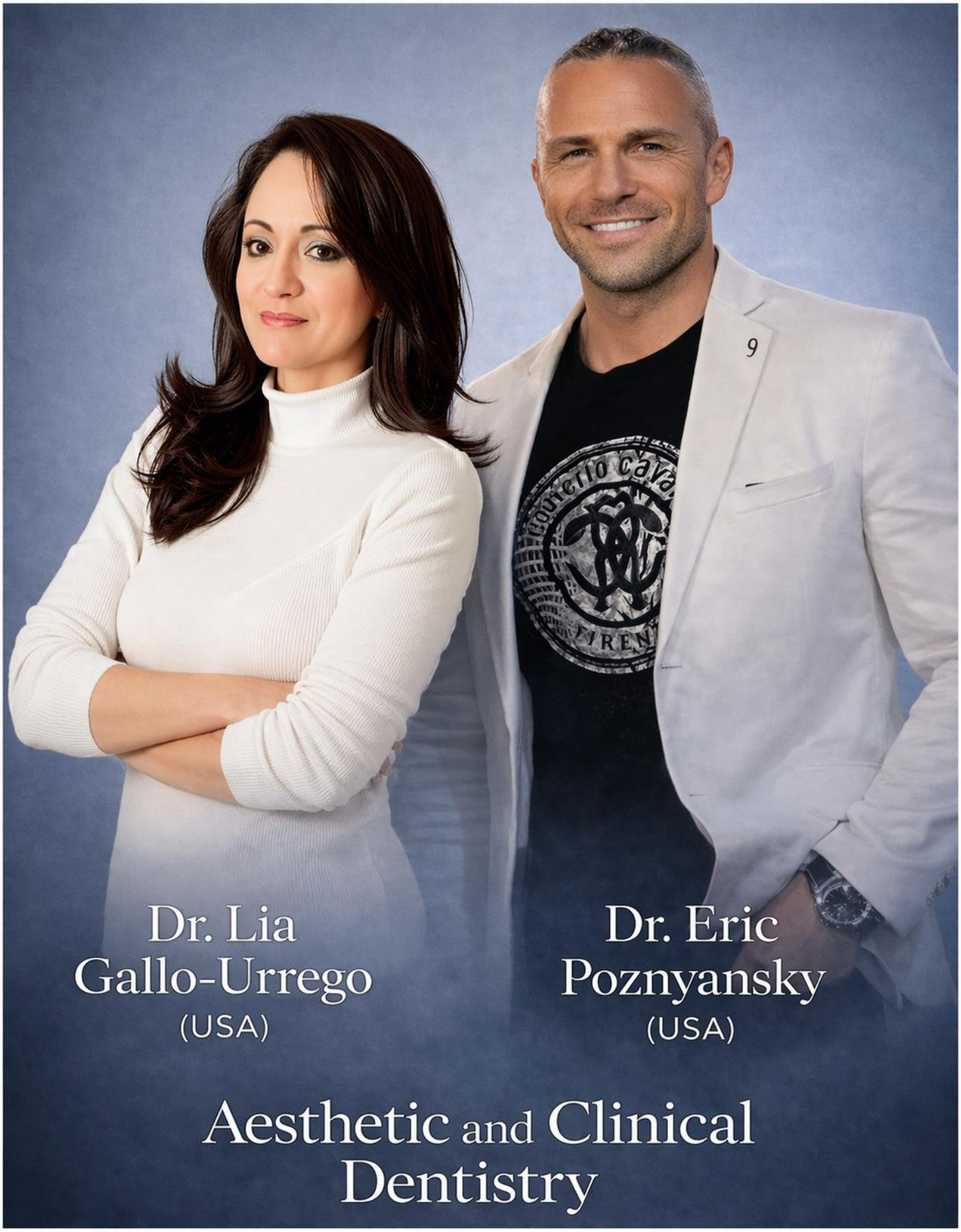
Finally, what message would you share with young doctors entering aesthetic medicine today, especially those who aspire to combine clinical mastery with strategic and entrepreneurial thinking?

Every generation of doctors inherits a system built by the one before it, and each must decide whether to preserve it or redesign it. Those who succeed long term are not only masters of medicine but architects of its next model. Every disruption doesn't need to start with technology, it starts with a perspective.

The field desperately needs people who combine clinical excellence with curiosity, strategic thinking, and an understanding of incentive structures and value creation. These are the doctors who move from being employees of the system to designers of it. That's where genuine progress begins.

The message is simple: see the system, learn it, and then make it better. Medicine has always evolved because someone dared to think differently. Be that person. Be bold, be awake, and don't shrink yourself to fit a system that's already outdated.


Dr John Anastasatos (USA)
Dr Marek Luciuk (Poland)
Dr Stefan Targosinski (Switzerland)
Plastic Surgeons


Dr. Lia
Gallo-Urrego
(USA)
Dr. Eric
Poznyansky
(USA)
Aesthetic and Clinical
Dentistry

Clinical Dentistry

Dr. Lia Patricia Gallo-Urrego is a dentist, entrepreneur, and founder of EquiVox™, a healthcare AI system focused on strengthening patient comprehension and diagnostic equity. With more than 30 years of clinical experience across the United States and Latin America, she built and successfully exited her private practice before dedicating her work to intelligent systems in healthcare. Trained in AI strategy and implementation at Harvard Medical School and MIT, she bridges clinical expertise with responsible AI innovation.

What moment made you realize traditional diagnostic models would not scale without intelligent systems?

There was not one dramatic moment. It was a pattern I could no longer ignore. After decades in clinical dentistry, I saw the same variability repeated across practices, providers, and even within the same clinician under time pressure. Diagnostics depend on human interpretation, documentation, communication, and follow-through. When volume increases, cognitive bandwidth does not.

The turning point for me was recognizing that diagnostic inconsistency was not a talent problem. It was a systems problem. Human cognition does not scale linearly. If we want equitable, consistent care across geographies and socioeconomic contexts, we need systems that augment perception, standardize interpretation, and reduce cognitive drift. That is where intelligent systems become not optional, but foundational.

What are the three most critical governance or diagnostic failures when clinical systems scale — and how can AI address them?

When practices scale, three failures consistently emerge.

First, diagnostic variability. As organizations grow, calibration across clinicians weakens. AI can provide pattern consistency and structured staging frameworks that reduce subjective drift.

Second, documentation fragmentation. Clinical intent, diagnosis, treatment plan, and patient comprehension often live in separate silos. Intelligent systems can unify structured data, imaging, and communication layers into a coherent diagnostic narrative.

Third, governance opacity. Leadership often lacks real-time visibility into diagnostic quality trends. AI systems, if properly designed, can create auditability and transparency without creating surveillance cultures.

Scaling without structured intelligence creates noise. Scaling with intelligent infrastructure creates clarity.

What differentiated EquiVox™ and what blind spot were you solving?

EquiVox™ was different because it did not focus on automation. It focused on comprehension.

Healthcare has invested heavily in diagnostic accuracy, but very little in ensuring that patients truly understand what is happening to them. We measure outcomes, revenue, and efficiency. We rarely measure understanding.

The systemic blind spot is that misunderstanding is treated as a patient problem instead of a system failure. EquiVox™ reframed communication as a measurable clinical variable. If a patient does not understand their diagnosis, consent, or treatment plan, the system has not completed its job.

That reframing is what resonated.

How should organizations measure comprehension before deploying AI?

Comprehension must be operationalized.

It can be measured through structured recall prompts, scenario-based validation questions, language-adjusted explanation loops, and confidence scoring before consent or discharge. It should not rely on "Do you understand?" because that question measures politeness, not comprehension.

Before deploying AI, organizations should baseline current comprehension variability across literacy levels, languages, and clinical complexity. Without a baseline, AI becomes a feature. With a baseline, it becomes an intervention.

What are your non-negotiable principles for responsible AI deployment?

From a board-level perspective, I have five non-negotiables.

1. Clinical oversight must remain human.
2. Data lineage must be transparent and auditable.
3. Bias monitoring must be continuous, not episodic.
4. Workflow integration must reduce burden, not add friction.
5. And patient dignity must never be compromised for efficiency.

AI in healthcare is not a productivity tool. It is a clinical instrument. It must be governed with that seriousness.

Where will AI have the highest impact in dental care?

Radiology will see immediate gains in pattern detection and staging consistency. That is clear.

But long term, I believe the highest impact will be at the intersection of diagnostics and patient communication. Dentistry is visually driven, yet patient comprehension often lags behind diagnostic precision.

When AI can simultaneously assist with detection, structured staging, and real-time translation of findings into understandable explanations, outcomes improve. Case acceptance improves. Trust improves. And diagnostic equity improves.

That is where impact compounds.

How should executives design adoption strategies?

Adoption fails when AI is introduced as technology instead of infrastructure.

Executives must align three layers simultaneously: clinical calibration, operational workflow mapping, and governance oversight. Clinicians need to understand how AI supports judgment, not replaces it. Operations needs frictionless integration. Governance needs visibility and guardrails.

Pilot programs should include structured feedback loops from day one. Resistance decreases when clinicians see that their insight shapes the system.

How can AI reduce disparities — and where can it amplify them?

AI can reduce disparities by standardizing diagnostic support in underserved regions, offering multilingual patient explanations, and extending triage capabilities beyond major urban centers.

But poorly designed systems can amplify inequity through biased training data, language limitations, and infrastructure assumptions that ignore bandwidth constraints or device access.

Equity must be engineered intentionally. It does not emerge automatically from innovation.

How must AI language change across audiences?

Clinicians need clarity about workflow impact and liability. CEOs need clarity about strategic differentiation and risk mitigation.
Regulators need clarity about traceability, validation, and governance.

The mistake leaders make is using the same language for all three groups. Technical enthusiasm alienates boards. Strategic abstraction frustrates clinicians. Regulatory vagueness alarms policymakers.

Fluency across these audiences is not stylistic. It is strategic.

How do you balance acceleration with responsibility?

Speed without reflection is dangerous. Reflection without implementation is irrelevant.

I balance both by asking a simple question: Does this system improve clinical judgment and patient dignity simultaneously? If the answer is no, it does not move forward.

Technology must accelerate capability, not erode humanity.

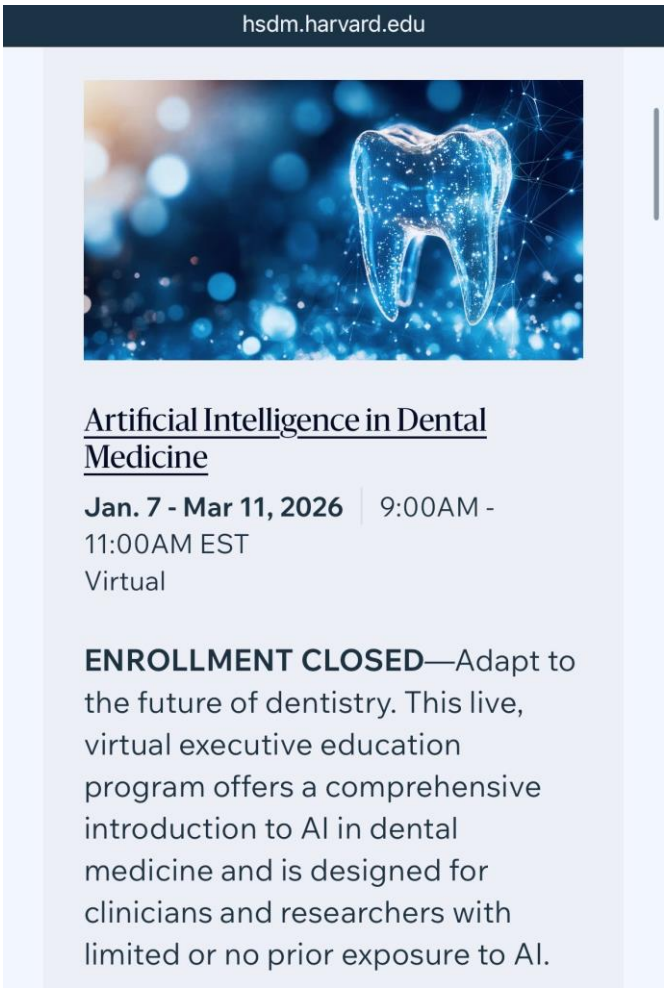
What will distinguish true healthcare AI leaders?

Technical capability will be necessary but insufficient.

True leaders will demonstrate ethical governance, cross-disciplinary fluency, and execution discipline. They will understand medicine, systems design, regulation, and communication. They will know when to deploy and when to pause.

I am positioning my next impact at the convergence of diagnostic intelligence and equity-centered design. Systems that see clearly, communicate clearly, and scale responsibly.

That is where the next decade will be defined.

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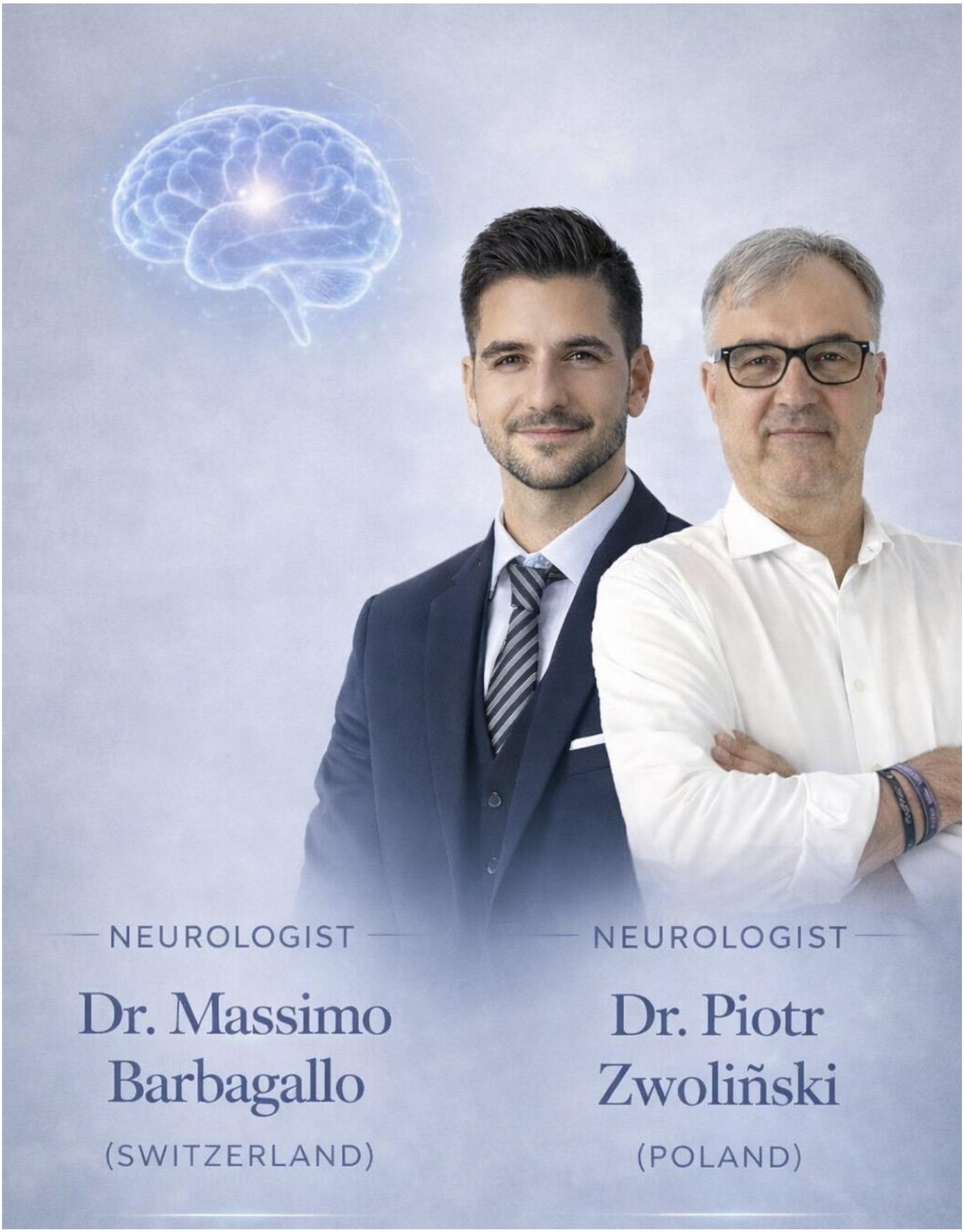

NEUROLOGIST
Dr. Massimo Barbagallo
(SWITZERLAND)
NEUROLOGIST
Dr. Piotr Zwoliński
(POLAND)

Neurology

PhD Doctor Piotr Zwoliński- is founder and CEO of Neurosphera Epilepsy Unit and co-developer of the Neuroterminal clinical platform. He is epileptologist, neurophysiologist, and electroencephalographer with 30 years of professional experience gained at top epileptology centers. Student of Prof. Jerzy Majkowski and Assoc. Prof. Waldemar Szelenberger; collaborator of Prof. Marcin Roszkowski and Prof. Milan Brazdil. Clinician, scientist, innovator, and inventor. Pioneer of modern neurocybernetics and clinical epileptology in Poland. Initiator of multiple epilepsy diagnostic and therapy methods in Poland: creator of EEG mapping and automated EEG analysis school, and pioneer of VNS therapy for epilepsy treatment in Poland. As a member of the pediatric epilepsy surgery team at the Children's Health Center, together with Prof. Roszkowski, introduced several new invasive methods, including foramen ovale electrodes, implanted electrode recording, Morell's subpial transection technique, and others. Obtained first and second degree specialization in neurology with distinction and a Doctor of Medical Sciences degree following defense of doctoral dissertation on digital methods in EEG analysis.

I. How Epileptology Changed Me

With over 36 years of clinical experience in neurology and epileptology, how has your understanding of epilepsy evolved, particularly in the context of modern diagnostic and therapeutic paradigms?

In your view, what defines excellence in epileptology today: access to technology, clinical reasoning, multidisciplinary collaboration, or something else entirely?

When I saw my first patient with drug-resistant epilepsy in the early 1990s — more than thirty years ago – the clinical question was straightforward: which antiseizure medication to try next. The brain was, in our practice, largely a black box (very early stages of CT- scans, no MRI). We classified by syndrome, adjusted by tolerance, and hoped. The field has since undergone a transformation so profound that it sometimes feels as though we are practicing a different discipline under the same name.

The most consequential shift has been the move from seizure suppression toward precision. Genetics – first karyotyping, then gene panels, then whole-exome sequencing – gave us the ability to name the mechanism driving a patient's epilepsy rather than simply labelling its surface appearance. A child with SCN1A-related Dravet syndrome is not merely a child with drug-resistant seizures; she has a specific biological vulnerability, a set of contraindicated medications, and an increasingly defined therapeutic target. The same applies to KCNQ2, CDKL5, FOXG1, and dozens of other genetically determined epilepsies now routinely encountered in a referral center. Precision, in this context, means individualized medicine grounded in mechanism – and it has fundamentally altered what I must know to be competent.

Excellence in epileptology today cannot be reduced to any single factor. It requires clinical reasoning sharp enough to distinguish a phenocopy from a true syndrome, technology sophisticated enough to support genetic and electrophysiological diagnosis, and a multidisciplinary team capable of integrating those findings into a coherent care plan. Remove any one of these and the others are diminished. The second transformation has been informational: between fifty and ninety peer-reviewed papers are published in the neurological sciences every single day. No human clinician can read, evaluate, and integrate that volume without structured assistance. This is not a personal limitation – it is a structural one, and it demands a structural response.

II. Building Neurosphera: Strategic Choices in a Fragmented System

As the founder and CEO of Neurosphera Epilepsy Unit, you have built one of Central Europe's leading referral centers. What were the key strategic decisions that enabled you to scale from clinical practice to a high-level, specialized institution?

Having led both clinical and organizational structures, how do you balance the precision required in individual patient care with the scalability needed to build a broader clinical ecosystem?

Neurosphera was founded with a conviction that specialist epilepsy care, to be truly excellent, must be designed rather than assembled by accident. Central Europe — and Poland in particular – faces a structural crisis in neurology: over three hundred thousand patients are currently waiting to see a neurologist in this country. Neurological wards are disappearing from hospitals for lack of trained staff. The system is anachronistic in its design, relying on hospital-based, episodic care at precisely the moment when ambulatory and telemedicine-based models have proven capable of delivering equivalent or superior outcomes.

Several decisions shaped Neurosphera into what it is today. The first was total digitalization. We operate with a proprietary platform – Neuroterminal – which functions as a fully cloud-based clinical ecosystem: patient records, diagnostic data, imaging archives, telemedicine infrastructure, and coordinated care sequencing in a single environment. The system currently supports over twelve thousand five hundred patients. More than twelve hundreds of them have never visited us in person; their care has been conducted entirely through telemedicine, with clinical outcomes indistinguishable from those of stationary patients. Paper documentation has been reduced by ninety-nine percent. These are not cosmetic improvements; they represent a fundamentally different model of care delivery.

The tension between individual precision and institutional scale is real, but it is resolvable through structure. Precision at scale is not achieved by asking every clinician to reinvent their reasoning for every patient; it is achieved by building shared frameworks –classification systems, care pathways, documentation standards – that embed best practice into the workflow itself. Scalability and clinical quality are not in opposition. They become opposed only when growth is pursued without investing in the systems that sustain quality. The second foundational decision at Neurosphera was therefore to treat clinical excellence and organizational infrastructure as inseparable – which eventually led to the creation of clinical NeuroHub.

III. NeuroHub: Coherence as the Core Design Principle

You recently introduced NeuroHub as an integrated clinical ecosystem. What gaps in traditional neurology and epileptology did you aim to address through this model?

NeuroHub combines structured training, certification pathways, and high-level referral care. How do you ensure that these three pillars remain clinically coherent rather than operating as parallel systems?

NeuroHub was conceived in response to a gap I observed repeatedly: the fragmentation of specialist training from specialist practice. Medical doctors complete residencies and attend conferences, but the translation of that knowledge into consistent clinical behavior – especially in complex, multi-comorbid patients – is rarely systematic. The gap between what the evidence says and what happens at the "bedside" is not primarily a gap in intelligence; it is a gap in structure.

NeuroHub integrates three pillars: high-level referral care, structured clinical education, and certification pathways. The educational arm operates through programs including

MedCase (case-based clinical reasoning), ClinCamp (immersive residential training with real patient sessions and multidisciplinary case analysis), and NEXUS (a tuned work-for-training system). What distinguishes this model from conventional continuing medical education is its insistence on clinical coherence – the three pillars do not run as parallel systems feeding into each other occasionally. They are designed to reinforce a single clinical culture: rigorous, evidence-based, patient-centered, and continuously learning.

ClinCamp, for example, is not a conference. It is a five-day clinical camp in which physicians work through real cases – epileptic encephalopathies, drug-resistant epilepsy classified under the GESCQ framework (our Global Epilepsy Surgery Collaborative Quorum team), genetically determined syndromes, surgical candidates – alongside didactic sessions and extended multidisciplinary case analyses. The format is deliberately demanding it requires real-time decision-making under expert supervision, not passive absorption of slides. Coherence is maintained not by hierarchy but by shared clinical language, shared classification frameworks, and shared documentation standards. When every member of the team uses the same ontologies and the same case-analysis format, the clinical culture sustains itself through the work rather than through administrative enforcement.

IV. Technology, AI, and the Limits of Human Processing, but still and always humn-in-the-loop

Epilepsy management increasingly relies on advanced diagnostics and data interpretation. How do you see the role of technology — particularly AI and data-driven systems —reshaping clinical decision-making in your field?

You have also been involved in advisory roles related to digital transformation and IoT. How relevant are these technologies to the future of neurology and, more specifically, epilepsy care?

The development of Neuroterminal's artificial intelligence components illustrates the trajectory I believe all clinical AI must follow – from statistical rule-based support toward genuine machine learning grounded in accumulated patient data and natural language processing. Our earliest decision-support engine – ICTAL – was built on statistical equations. Its successor, ICTAL-GT2, incorporated mathematical models drawing on our growing longitudinal dataset. The current generation under development, EpiInsight, is built (in process) on large and small language model architecture with natural language processing, trained on our clinical data and capable of tracking and synthesizing published literature at scale.

This progression reflects a broader truth: AI in clinical medicine is most valuable not when it replaces clinical reasoning, but when it extends the physician's cognitive bandwidth into domains that are simply impossible to navigate unaided. Literature synthesis is one such domain. Recognizing rare genetic syndrome patterns across a panel of ambiguous phenotypes is another. The physician who does not understand how to work with data- driven tools will increasingly be limited in the same way a physician who cannot interpret an EEG is limited: not entirely unable to function, but unable to access a significant dimension of clinical information.

My involvement in digital transformation and IoT advisory roles has reinforced a conviction that these technologies are not peripheral to clinical medicine – they are becoming foundational infrastructure. A patient whose seizure frequency is continuously logged by a wearable device, whose medication adherence is tracked through a connected dispenser, and whose neurologist reviews AI-synthesized trends before each visit is not a vision of distant medicine. It is architecturally available today and building clinical systems that can absorb and act on that data is one of the defining tasks of our generation of specialists.

V. The Future Neurologist: Clinician, Interpreter, Architect

You emphasize structured clinical training through programs such as MedCase, ClinCamp, and NEXUS. How should modern neurological education evolve to better prepare physicians for complex, real-world cases?

From your perspective, what are the most critical unmet needs in epilepsy treatment today, particularly in Central and Eastern Europe?

Your work integrates clinical medicine, education, and system-level innovation. Looking ahead, do you

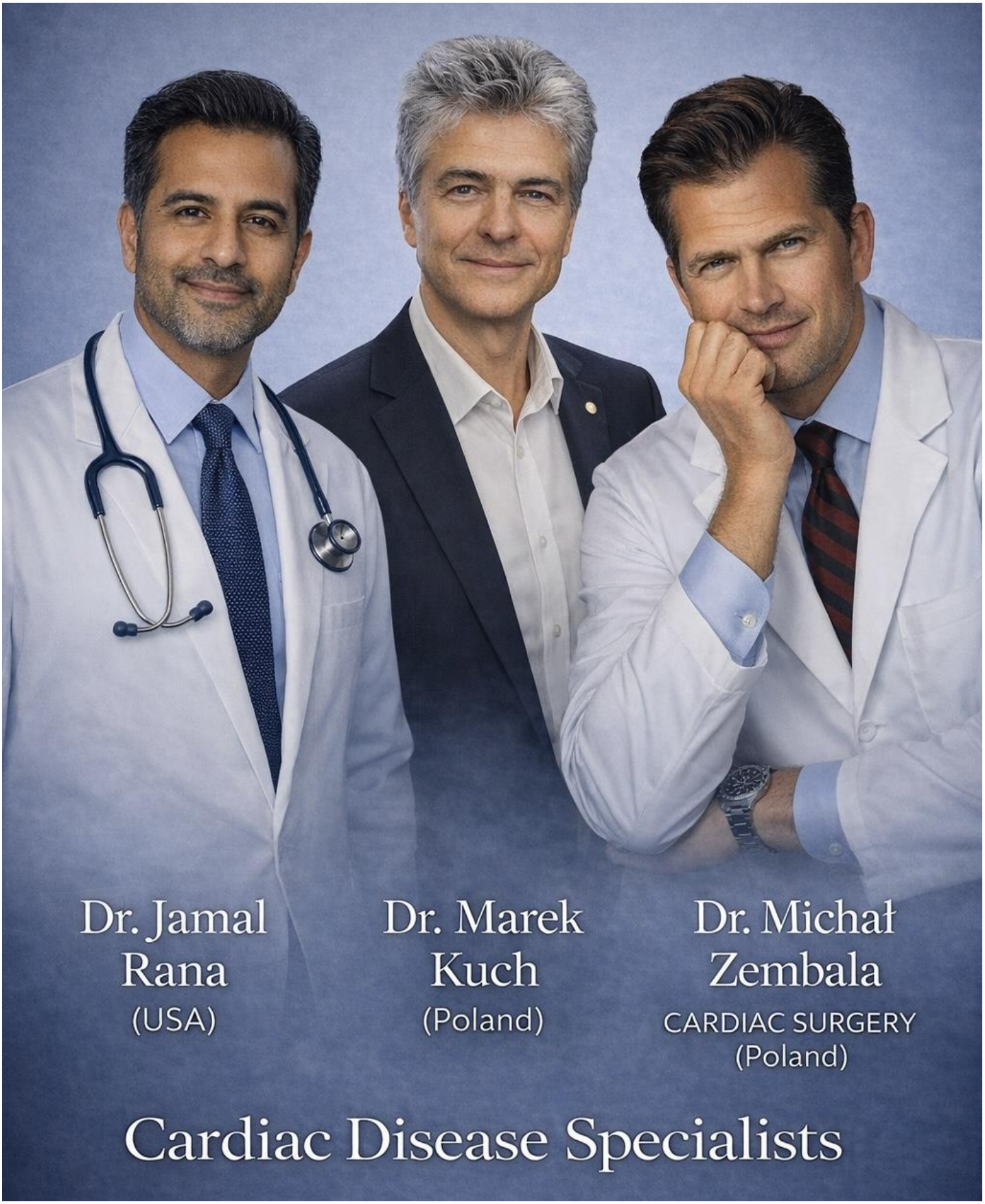
envision the future neurologist as primarily a clinician, a data interpreter, or an architect of integrated care systems?

The most critical unmet need in epilepsy care in Central and Eastern Europe is not, in my view, primarily a shortage of new molecules or diagnostic technologies – though both matters. It is the absence of systems capable of delivering existing knowledge consistently to patients who need it. The three hundred thousand patients waiting for neurology appointments in Poland are not waiting because no effective treatments exist. They are waiting because the infrastructure for coordinating, digitizing, and sequencing their care has not been built. That is a system design problem, and it requires a system design response.

The reform of neurological education must follow the same logic. Modern training should not be a choice between clinical immersion and technical literacy – it must be both simultaneously, with cases providing the integrating context. A young neurologist examining a child with suspected developmental and epileptic encephalopathy should, in the same session, formulate a clinical impression, review the relevant genetic literature, interpret the EEG in the context of the emerging phenotype, and map the care pathway forward including genetic counselling, allied health input, and family communication. That is what complex real-world epileptology looks like. Our training should prepare for it explicitly, not leave it to be discovered by trial and error in independent practice.

The question I am most often asked is how I see the future neurologist's primary role. My answer is: all three, and the appropriate emphasis depends entirely on context. The neurologist seeing a patient for the first time – taking a history, examining, forming a differential – is acting as a clinician, and nothing replaces the perceptual and relational skills that role demands. The neurologist reviewing a whole-exome sequencing report or an AI-generated literature summary is acting as a data interpreter. The neurologist who designs the care pathway, supervises the training program, and integrates the digital infrastructure is acting as an architect of integrated care. What is changing is not which role matters, but the consequences of being unprepared for any one of them. Incompleteness in any dimension now costs patients more than it used to – because the problems we are treating are more complex, and the tools available to address them more powerful.

Nearly four decades of medicine – and more than thirty years as an epileptologist – have convinced me of one thing above all: the patients who benefit most from modern medicine are not the ones who happen to encounter a brilliant individual physician. They are the ones who enter a well-designed system in which clinical excellence, continuous education, and intelligent infrastructure operate as a coherent whole. Building that system –and teaching others to build it – is the work I find most meaningful, and the work I believe the field most urgently needs.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(USA)
Dr. Marek Kuch
(Poland)
Dr. Michał Zembala
CARDIAC SURGERY
(Poland)
Cardiac Disease Specialists

Cardiology

Oleksandra Telehuzova is a Ukrainian cardiologist, STA in Harvard T.H. Chan School of Public Health. public health educator, and health communications expert whose work unites science, service, and public trust. Based in Kyiv, she combines clinical practice with a broader mission: to bring evidence-based medicine closer to people through education, public dialogue, and media. Alongside her medical career, she has worked in parliamentary affairs and in strategic communications for Ukraine's Ministry of Health and WHO Ukraine, reflecting a rare ability to connect patient care with health policy and public impact.

As a Teaching Assistant at Harvard T.H. Chan School of Public Health, how has your experience within the Harvard academic environment shaped your perspective on modern cardiology and public health integration?

My experience within the Harvard academic environment has deepened not only my intellectual understanding of cardiology and public health, but also highlighted my sense of medicine as a profoundly humanistic calling. Medicine, to me, has never been merely a profession; it has always felt like a form of moral attentiveness — a way of standing guard over human fragility.

At Harvard, one is constantly reminded that cardiovascular disease is not merely a sequence of clinical events unfolding in individual bodies; it is also a social, behavioral, economic, statistical and political phenomenon. That perspective changes one's entire intellectual posture.

In a purely traditional clinical setting, one is trained to ask: What is the diagnosis? What is the treatment? What is the procedural strategy? At Harvard, the questions become broader and, in many ways, more morally demanding: Which structural determinants shaped the risk? Which public messages were absent? Which preventive systems failed long before this person reached the operating theatre or the ward? How can I measure the effectiveness of care?

That way of thinking resonates deeply with my work beyond the clinic. I am profoundly committed to speaking to the public about health — through my podcast and through columns for leading media outlets. I regard this not as an exercise in visibility, but as a values-driven civic duty. It is deeply important to me, and in many ways volunteer work for the good of my country and its people. I have long believed that knowledge must serve people, not merely impress institutions.

Harvard is known for its strong emphasis on evidence-based medicine and global health policy. How do you translate these principles into your daily clinical practice as a cardiologist in Ukraine?

For me, evidence-based medicine is not a slogan; it is an ethical discipline. It means approaching each clinical decision with honesty, scientific rigour, and humility before the data. It's not widely accepted in the scientific world. Alas. Nevertheless, in my daily clinical practice in Ukraine, that translates into asking not only what can be done, but what should be done, what is justified by the best available evidence, and what is realistically achievable in the patient's context.

Harvard reinforced the principle that evidence must never become mechanical. Guidelines matter immensely, but medicine remains an art of applying general knowledge to singular human beings.

I continue to treat patients actively, and that ongoing clinical work remains the moral center of everything I do. It keeps me honest. It prevents the theory from becoming detached from reality. One of the most moving examples in my practice is a patient whom we operated on at the age of 99, and who this year celebrated his 103rd birthday. I am deeply proud of that story — not simply because it reflects clinical success, but because it embodies something larger: resilience, trust, and the astonishing strength of the human spirit. He is my hero and a genuine source of inspiration.

Your educational experience at Harvard focused on clinical trials. How has this training influenced the way you evaluate new therapies and treatment protocols in cardiology?

My training in clinical trials fundamentally changed the way I read medical literature. It taught me to move beyond enthusiasm and cultivate disciplined scrutiny. Whenever a new therapy, device, or protocol emerges, my first instinct is not to ask whether it is fashionable or impressive, but whether it is credible, reproducible, clinically meaningful, and relevant to the population I serve.

Harvard sharpened my attention to methodology: study design, endpoints, selection bias, statistical power, external validity, subgroup interpretation, and the crucial distinction between statistical significance and genuine clinical value.

At the same time, this training strengthened my commitment to translating complex evidence into language patients and the wider public can genuinely understand.

Working simultaneously in a high-level academic setting at Harvard and in a clinical environment in Kyiv creates a unique dual perspective. How do you navigate and integrate these two worlds?

I do not see these two worlds as contradictory; I see them as corrective to one another. Harvard offers altitude — a broad conceptual view, intellectual challenge, methodological precision, and exposure to global frameworks. Kyiv offers gravity — urgency, human complexity, clinical realism, and the moral seriousness of practicing medicine where resources, predictability, and institutional stability cannot always be taken for granted.

The academic world can sometimes drift towards abstraction; the clinical world can leave too little time for reflection. Holding both together is, for me, profoundly generative. Harvard sharpens my thinking; Kyiv tests its truth. One teaches me how medicine ought to be imagined at its best, while the other reminds me how medicine must be practiced under pressure, ambiguity, and real human need.

Also I speak a lot about health publicly because silence, in many contexts, is also a form of neglect. In a time of great strain for Ukraine, speaking honestly and intelligently to people about health is, in my view, not secondary work — it is necessary work.

In your view, what distinguishes Harvard's approach to public health education from more traditional medical training systems in Europe?

What distinguishes Harvard's approach, in my experience, is its insistence that health must be understood as a system rather than merely a profession. Traditional European medical education is often exceptionally strong in biomedical fundamentals, diagnostic reasoning, and clinical discipline. Harvard, however, adds another dimension: it trains one to think across disciplines, across sectors, and across scales. That's very useful in my clinical practice.

At Harvard, one is encouraged to connect epidemiology with policy, clinical medicine with economics, biostatistics with ethics, and individual suffering with institutional design. In Ukrainian medical practice I can create, I can use all the best tools from different fields to achieve the most desirable outcomes.

I also admire the intellectual culture of questioning. There is a premium placed not on deference, but on analytical independence. Students are expected not merely to absorb knowledge, but to interrogate assumptions, challenge weak arguments, and synthesize perspectives. In that sense, Harvard's approach is less about transmitting settled truths and more about cultivating disciplined minds capable of dealing with uncertainty.

As someone involved in both clinical cardiology and public health education at Harvard, how do you see the future role of cardiologists evolving in the context of population health and prevention?

I believe the cardiologist of the future must be more than a specialist in late-stage disease. The field is moving — and rightly so — towards a broader identity in which cardiologists become interpreters of risk, advocates of prevention, educators, and contributors to population health strategy.

Cardiovascular disease remains deeply shaped by diet, stress, inequality, environment, health literacy, and access to timely care. If cardiologists engage only when disease has already become acute, we intervene too late and too narrowly. The future demands that we think not only in terms of intervention, but anticipation.

For that reason, I believe communication is becoming part of the cardiologist's professional responsibility. If we possess knowledge that can prevent suffering, then we have a duty to share it beyond academic journals and conference halls. I want people to understand their bodies, their risks, their choices, and their possibilities for prevention. In my view, this is not merely an educational activity; it is a form of service to public health and, in the context of my country, a meaningful contribution to the common good.

The old boundary between specialist medicine and public health is becoming intellectually untenable. In many ways, the future belongs to those able to bridge it.

Your experience includes roles within healthcare policy and governmental structures. How has your exposure to Harvard's global health framework influenced your understanding of healthcare system design and reform?

Harvard's global health framework made my understanding of healthcare reform both more ambitious and more realistic. It encouraged me to see that health systems are not improved by rhetoric alone, nor by isolated technical fixes, but by coherent design: financing, governance, workforce development, information systems, prevention strategy, accountability, and public trust must all be aligned.

My exposure to this framework reinforced the idea that good systems are not defined solely by the sophistication of tertiary care. They are defined by continuity, access, resilience, fairness, and the ability to protect human dignity under stress.

The Harvard T.H. Chan School places strong emphasis on interdisciplinary collaboration. How important is this approach in addressing complex cardiovascular challenges, particularly in regions facing systemic healthcare pressures?

It is absolutely essential. Cardiovascular disease is too complex to be addressed adequately within the silo of a single specialty. Its causes and consequences extend across clinical medicine, behavioral science, nutrition, health economics, emergency systems, psychology, policy, and community care. To confront such a challenge with an overly narrow lens is, frankly, insufficient.

In regions facing systemic healthcare pressure, interdisciplinary collaboration becomes even more important because resources must be used intelligently, not merely intensively. Better outcomes often depend as much on logistics, workforce coordination, prevention pathways, rehabilitation, and patient education as on pharmaceuticals or procedures alone.

My own work has made this reality very tangible. I continue to operate, to treat, and to accompany patients over time. The stories of our patients before, during the war are powerful reminder that medicine is never merely technical. What has always moved me most in medicine is not only the science of survival, but the poetry of human endurance. Such outcomes are born from skill, certainly, but also from teamwork, continuity, patient trust, and a refusal to reduce human beings to statistics. He remains one of the great inspirations of my professional life.

Our patient, Ivan, is a serviceman who spent three years in captivity and returned with a fragment of a shell lodged directly in his heart. Cardiac surgeon Glib Yemets removed that fragment endoscopically. It is medicine of a truly extraordinary level. I am proud to be able to work in such a team.

Having worked in Ukraine during a period of significant healthcare challenges, how do you apply insights gained from Harvard to improve patient outcomes under resource-constrained conditions?

Resource constraints force one to clarify what truly matters. In such circumstances, Harvard's influence has helped me focus on high-value care: interventions supported by strong evidence, decisions grounded in careful risk stratification, and clinical pathways that maximise benefit even when resources are finite.

It has also reinforced the importance of systems thinking. Under difficult conditions, improving outcomes is often less about any single heroic act and more about reducing fragmentation — ensuring earlier recognition, better triage, clearer protocols, stronger follow-up, and more coherent communication between levels of care.

But another lesson is equally important: when systems are under pressure, society needs trustworthy voices. This is one reason why my public-facing work matters so much to me.

As an educator at Harvard, how do you approach teaching future healthcare professionals to think critically, particularly in the context of rapidly evolving medical knowledge and global health crises?

I try to teach critical thinking not as scepticism for its own sake, but as disciplined responsibility. In a world of rapidly evolving evidence, conflicting claims, and recurring global crises, the central educational task is not merely to provide information, but to cultivate judgement.

I encourage future healthcare professionals to ask several fundamental questions: What is the quality of the evidence? What assumptions underlie this recommendation? What is known, what is uncertain, and what is being oversimplified?

Looking ahead, how do you envision leveraging your Harvard experience to contribute to the development of more resilient and patient-

centered cardiovascular care systems, both locally and internationally?

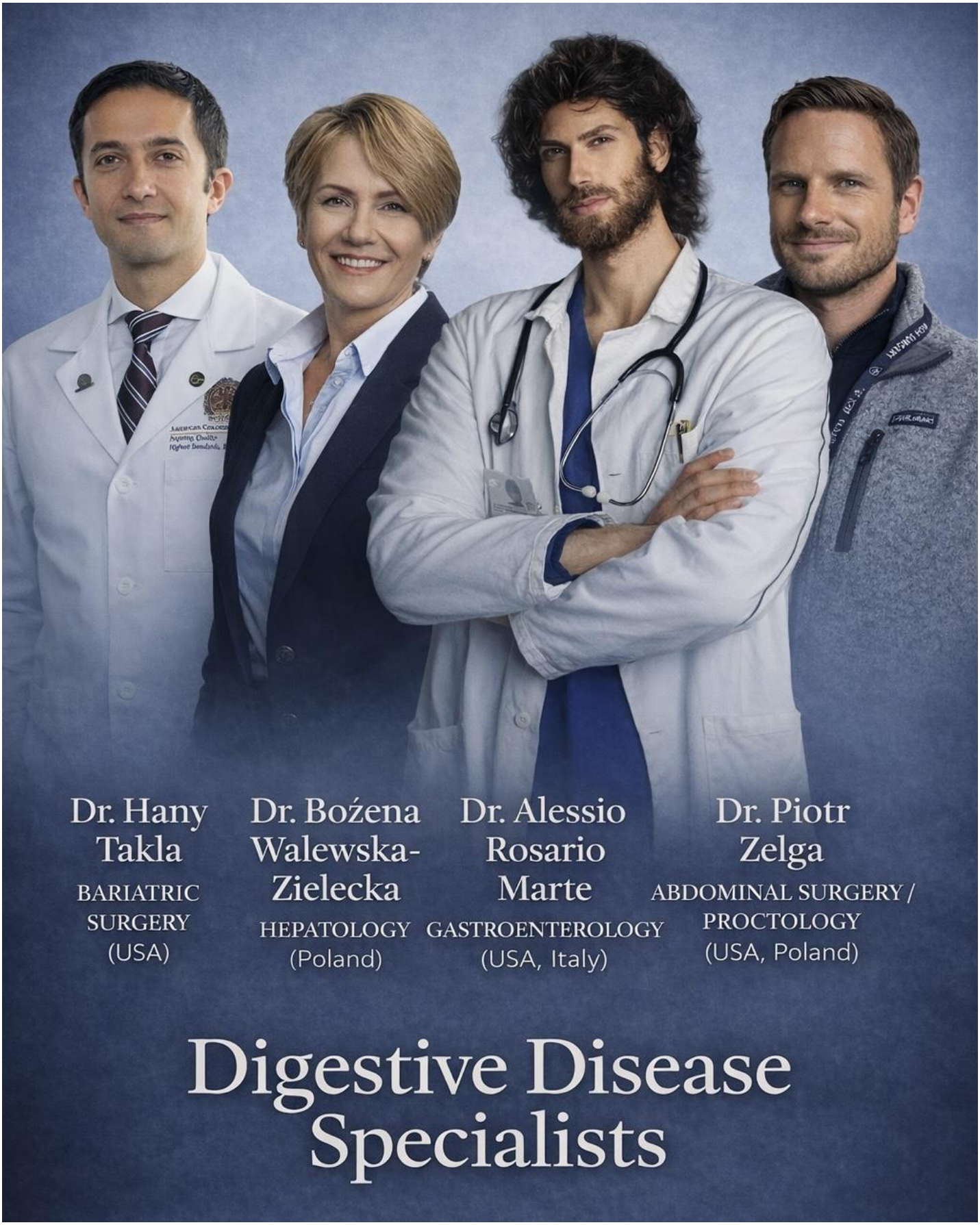
Looking ahead, I see my Harvard experience as a bridge — not as a credential to display, but as a responsibility to translate knowledge into durable institutional and human value. Also as a great point of honor for me as I first student from Ukraine. I hope to contribute to cardiovascular care systems that are at once more evidence-based, more humane, more resilient, and more patient-centred.

Locally, that means strengthening prevention strategies, clinical pathways, medical education, and the integration of cardiology with broader public health priorities.

At the same time, I will continue to treat patients. For me, nothing replaces the moral clarity of clinical medicine.

Ultimately, resilience in healthcare is not only about infrastructure. It is about trust, adaptability, moral clarity, and the refusal to let human dignity be eclipsed by system failure. If my work can help build care that is scientifically strong, deeply human, and genuinely worthy of the people it serves, then I will feel that I have used this experience well.

My relationship with medicine has always been deeply personal: it is where intellect, responsibility, and compassion meet. My favorite Magritte reminds me that reality is often layered and deceptive; in clinical work too, what appears obvious is not always the full truth. Chagall reminds me that even in hardship, the human spirit retains its capacity for tenderness and transcendence. Degas teaches a discipline of observation — the ability to notice movement, strain, posture, and grace. In a different register, medicine asks for the same exacting attention. If science gives medicine its structure, then empathy and imagination give it its soul.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BARIATRIC SURGERY
(USA)
Dr. Bożena Walewska-Zielecka
HEPATOLOGY
(Poland)
Dr. Alessio Rosario Marte
GASTROENTEROLOGY
(USA, Italy)
Dr. Piotr Zelga
ABDOMINAL SURGERY / PROCTOLOGY
(USA, Poland)
Digestive Disease Specialists

Bariatric Surgery

Dr. Takla, a board-certified surgeon with expertise in minimally invasive robotic surgery. Specializing in bariatrics, hernia repairs, and abdominal procedures, he is dedicated to delivering surgical excellence and personalized care. Dr. Takla has completed over 2000 robotic procedures and 500+ weight loss surgeries.

Dr. Takla is a Fellow of both the American College of Surgeons (ACS) and the American Society for Metabolic & Bariatric Surgery (ASMBS). Recently awarded the Metabolic and Bariatric Surgery Focused Practice Designation (DABS-FPMBS), he combines precision and compassion to achieve life-changing outcomes for every patient.

Dr. Takla, you have an impressive background in robotic and bariatric surgery. What initially drew you to this specialty?

I feel like with Bariatric surgery the physician can have a strong impact on someone's life and give them a chance to live a healthy, fulfilling life. It is very rewarding to see the change in my patient's lives year after year. Robotic surgery is the present and the future. It is such a superior technology that allows us as surgeons to perform our job with such precision and safety and provide our patients with much better outcomes.

You've worked at several leading institutions, including Tufts University and Orlando Health. How have these experiences shaped your surgical philosophy?

This allowed me to have different experiences in different health care systems here in the US and internationally which greatly shaped who I am today as a world-renowned surgeon. I was able to navigate challenges in academic medicine but at the same time enjoyed teaching medical students and the next generation of surgeons. While transitioning into community practice allowed me to have access to more advanced technology as well as state of the art, medical innovation.

Bariatric surgery is evolving rapidly — what recent innovations or techniques do you find most promising for improving patient outcomes?

Definitely robotic surgery is on top of the list as well as several advances in AI as well as Telesurgery. In addition, several new Endoscopic interventions are becoming available for our Bariatric patients.

From your perspective, what are the biggest misconceptions patients still have about bariatric or metabolic surgery?

People are still scared of weight loss surgery despite being one of the safest operations in surgery. In addition, people worry about long-term risks from these procedures, which are also very minimal. The biggest misconception about metabolic surgery is that it is very invasive and risky. However, what is way riskier is actually doing nothing.

You also have strong experience in abdominal wall reconstruction. How does this field intersect with your bariatric practice?

A lot of my patients suffer from both obesity as well as abdominal wall hernias, two things that significantly affect their quality of life. Unfortunately, being overweight is a significant risk for developing hernia.

As a Clinical Instructor at Tufts University School of Medicine, how do you approach mentoring young surgeons and medical students?

I like to approach it as a long-term relationship which doesn't end by teaching a few techniques but a holistic approach to patient care. From learning how to establish rapport and a good human relationship with your patient to decision making about the best procedure that suits the patient and aligns with their goals to technical aspects of surgery, follow up and patient recovery.

Robotic surgery has transformed the way complex procedures are performed. In your opinion, what is the next frontier in surgical robotics?

Definitely that would be AI and Telesurgery which is already happening on ground.

You completed advanced leadership training at Harvard Medical School. How has this influenced your approach to managing surgical teams and patient care?

Of course, this was in fact one of the best educational experiences I've had throughout my career and helped me lead different teams effectively and achieve organizational goals.

The balance between precision, empathy, and innovation is crucial in modern surgery. How do you personally maintain this balance?

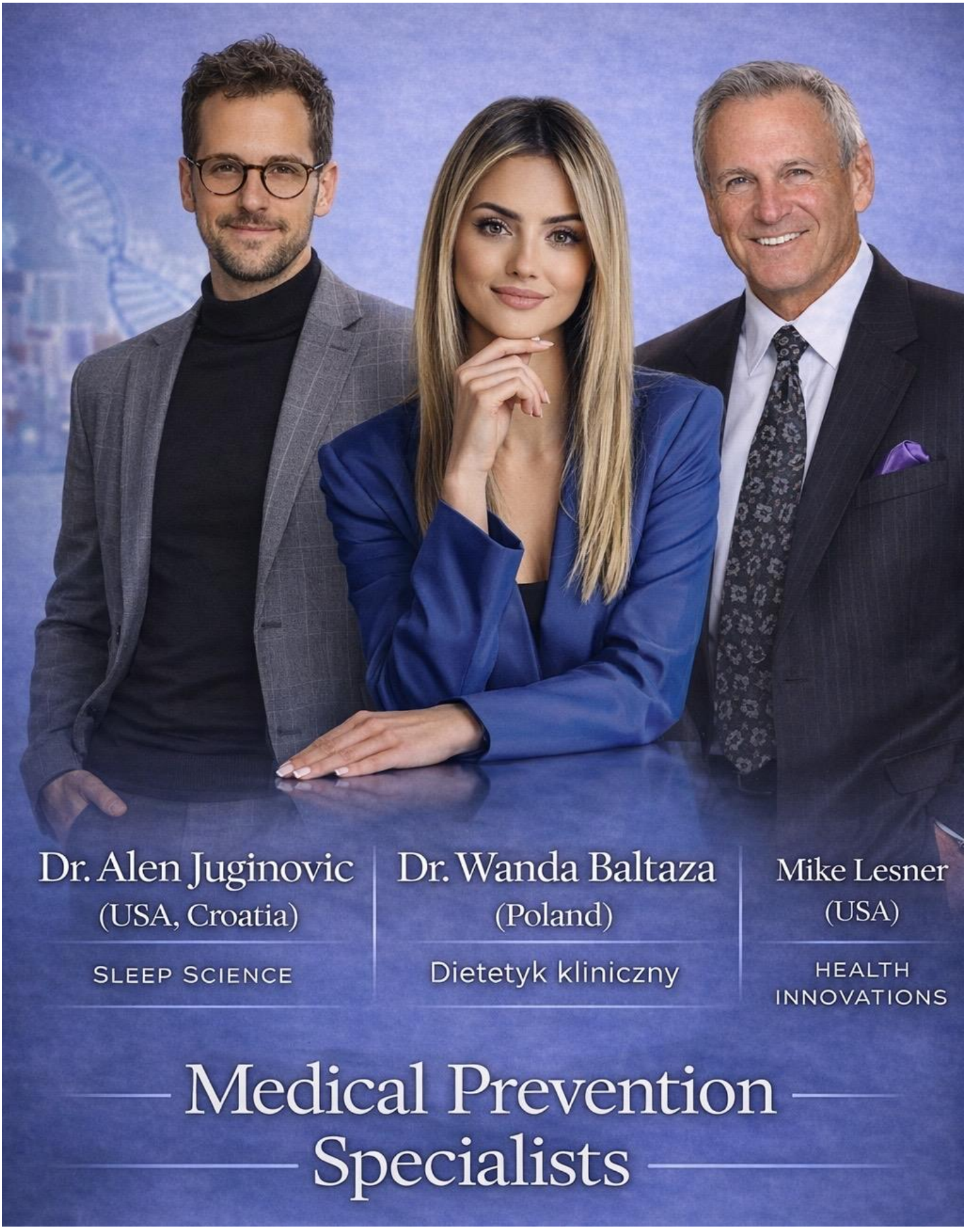
The easiest way is to think of our patients as our own family, only then would we be able to offer precision, empathy and innovation in a safe and effective way and have great outcomes.

Looking ahead, what do you think will define the next decade of metabolic and bariatric surgery?

I think we will see multimodal therapy including GLP 1 medications in combination with Surgery or endoscopy. There will also be a surge of patients that had failure or non-response to GLP 1 medications. Revisional Surgery will also be on the rise.

Finally, what message would you like to share with medical students and young doctors reading M for Medics who aspire to follow a surgical career path?

I would say, make sure you do what you like so that you can like what you do. Put in the effort and hours and it will pay off.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(USA, Croatia)
SLEEP SCIENCE
Dr. Wanda Baltaza
(Poland)
Dietetyk kliniczny
Mike Lesner
(USA)
HEALTH INNOVATIONS
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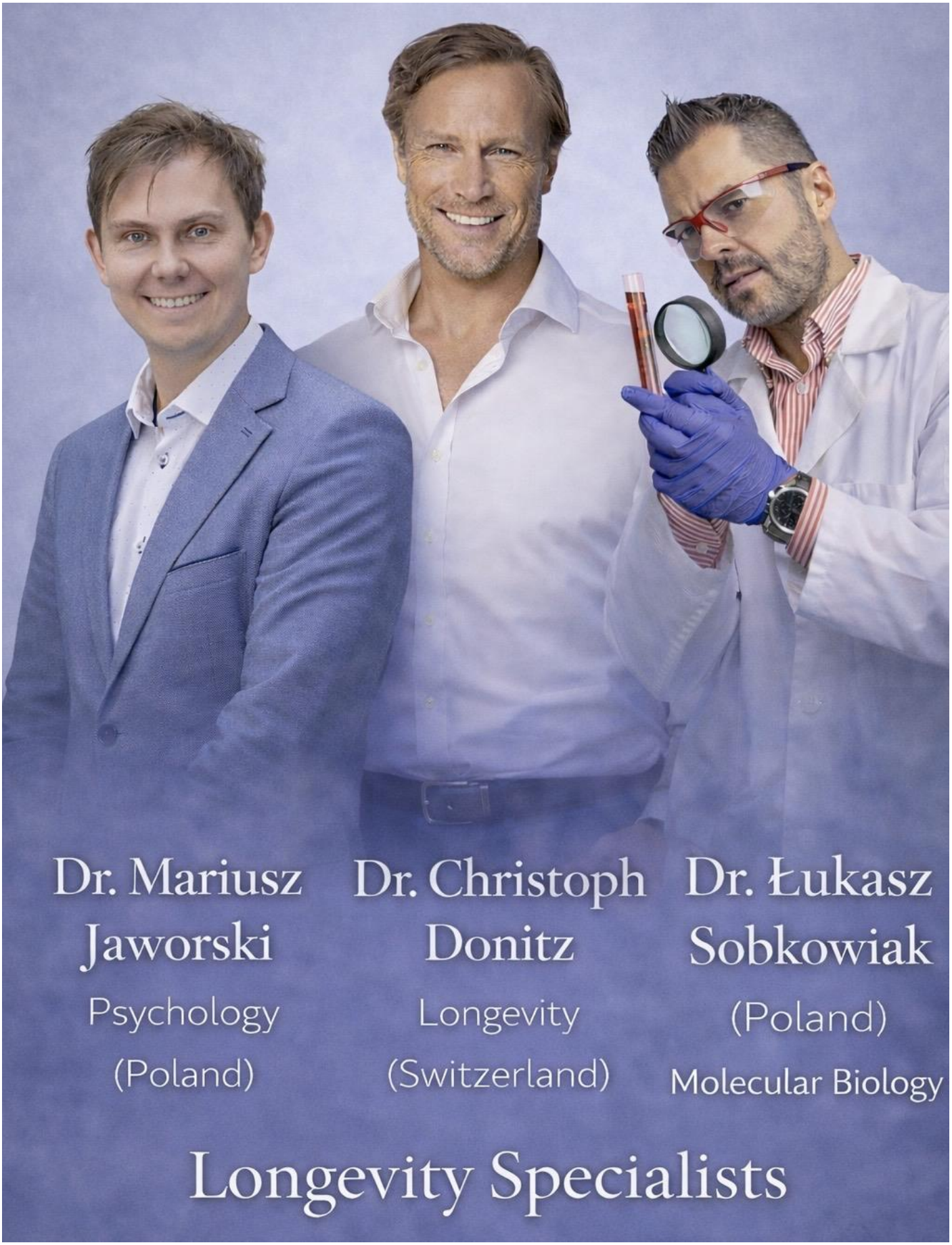
Dr. Mariusz Jaworski
Psychology
(Poland)
Dr. Christoph Donitz
Longevity
(Switzerland)
Dr. Łukasz Sobkowiak
(Poland)
Molecular Biology
Longevity Specialists

Psychology

Mariusz Jaworski, PhD, DSc, is an Associate Professor at the Medical University of Warsaw, Poland. He is a psychologist, dietitian, certified sexologist, and cognitive-behavioral psychotherapist in training. His work integrates public health nutrition, behavioral sciences, and mental health, with a particular focus on eating behaviors, sustainable food systems, and the implementation of complex health interventions. Alongside his academic work, he is engaged in clinical practice, working with patients with eating disorders, which informs his translational research approach.

Your work integrates psychology, sexology, and public health. How do you conceptualize the theoretical and methodological intersections between these disciplines within your research framework?

In my approach, psychology, sexology, and public health are not separate disciplines but rather complementary ways of understanding how individuals function in relation to their bodies, emotions, behaviors, and social environment. Psychology helps explain why people make certain decisions and how they regulate emotions. Sexology brings in the perspective of embodiment, body image, and interpersonal relationships, all of which are essential for overall well-being. Public health, in turn, highlights that these processes do not occur in isolation but are shaped by broader contextual factors such as education systems, food environments, and institutional structures. This integrated perspective becomes particularly evident in my clinical work with patients experiencing eating disorders.

In these areas, eating is rarely just about nutrition. It is often closely linked to emotional regulation, a sense of control, body image, and the influence of social norms. For this reason, changing dietary patterns alone is usually insufficient. It is equally important to understand the underlying psychological mechanisms and the context in which individuals operate.

From a methodological standpoint, this involves integrating multiple levels of analysis, from individual psychological processes to system-level determinants of health. Alongside clinical research, I am actively involved in projects developed in collaboration with local government, focusing on the prevention of overweight and obesity in school settings. This allows me to view health not only as the outcome of individual choices but also as a result of structural conditions that can either support or hinder those choices.

In my view, it is precisely at the intersection of these disciplines that the most meaningful and applicable knowledge emerges. Such knowledge not only deepens our understanding of patients but also enables the design of more effective preventive and system-level interventions. This is the direction I

consistently pursue in my work by integrating clinical practice with a population health perspective.

As a contributor to the PRACTA project on active ageing, which psychosocial variables do you consider most critical in determining successful ageing trajectories, and how can they be operationalized in public health interventions?

From my perspective, ageing is not solely a biological process but primarily an adaptive one, in which psychosocial factors play a central role. Among the most important are a sense of agency, understood as the belief that one has a real influence over one's health and daily functioning, the ability to regulate emotions, the quality of social relationships, and established patterns of health-related behaviors. These elements reinforce one another and largely determine whether a person can maintain activity and well-being in later stages of life. Based on my research and clinical experience, the capacity for flexible adaptation is particularly important, meaning the ability to adjust habits and expectations to changing health conditions and life circumstances.

When it comes to operationalizing these factors in public health, it is essential to move beyond approaches based solely on the transmission of knowledge. Interventions should support specific psychological and social competencies, such as strengthening agency, fostering relationships, and developing emotion regulation skills. In practice, this means designing interventions that are not only educational but also engaging and embedded in participants' everyday lives. Community-based programs that combine health education with social support and behavior-focused components are a good example of this approach. Such a perspective allows us to move away from the assumption that knowledge alone leads to change and toward a model in which individuals are actively supported throughout the process of behavior change. I believe this is a key direction for effective interventions in the field of healthy ageing.

To what extent do psychological factors mediate the relationship between lifestyle behaviors and the development of non-communicable diseases?

Psychological factors play a fundamental role in the relationship between lifestyle behaviors and the development of non-communicable diseases and, in my view, they represent one of the key mediating pathways within a broader set of interacting biological, social, and environmental determinants. Lifestyle is often presented as the result of conscious and rational choices. However, in clinical practice it becomes clear that health behaviors are strongly shaped by emotional and habitual processes.

What we eat, how physically active we are, and how we respond to stress reflect a complex interplay of emotional, social, and environmental influences, including patterns of emotion regulation, underlying beliefs, and life experiences. This is particularly evident in the context of eating disorders. Eating often serves a regulatory function, helping individuals cope with stress, tension, or difficult emotions. In such cases, attempts to change dietary behavior without addressing these underlying mechanisms are usually short-lived.

A similar pattern can be observed in chronic stress, which influences both behavioral choices and physiological functioning. As a result, psychological factors not only shape behaviors but may also influence physiological processes associated with the development of non-communicable diseases. For this reason, effective health interventions should address not only behavioral change but also the psychological mechanisms that sustain these behaviors. In my practice, this means integrating nutritional approaches with elements of cognitive behavioral therapy, which allows for more sustainable outcomes. I believe that only such an integrated approach enables a meaningful impact on both the prevention and treatment of chronic diseases, as it addresses their underlying rather than merely surface-level determinants.

Your doctoral research examined personality and nutritional variables in eating disorders. How do these findings contribute to current etiological models and evidence-based treatment strategies?

My doctoral research focused on examining the relationships between personality traits and nutritional variables in eating disorders. One of the key conclusions was that eating-related behaviors cannot be understood in isolation from an individual's broader psychological functioning. The findings showed that specific personality traits, such as impulsivity and aspects of cognitive control, as well as patterns of emotion regulation, are closely associated with maladaptive eating behaviors. In practice, this means that eating often serves a secondary role in relation to deeper psychological mechanisms, including the need for control, difficulties in coping with emotions, or cognitive rigidity. These observations are consistent with contemporary transdiagnostic models, which suggest that different eating disorders may share common maintaining mechanisms regardless of their clinical presentation. From this perspective, it becomes important not only to consider what a patient eats, but also why and under what conditions certain behaviors occur.

From a clinical standpoint, this implies the need to move beyond approaches focused solely on diet. Effective treatment strategies should address emotion regulation, underlying beliefs, and established behavioral patterns. In this context, cognitive behavioral approaches play a particularly important role, as they allow for the identification and modification of mechanisms that sustain the disorder. My research therefore supports a perspective in which the treatment of eating disorders is understood as a process addressing overall psychological functioning, rather than focusing exclusively on eating behavior itself.

How do you approach the translation of empirical research findings into clinical practice, particularly in the domains of health psychology and sexology?

I consider the translation of empirical research findings into clinical practice to be one of the most important aspects of my work, while also recognizing it as a process that requires careful adaptation rather than simple implementation. Scientific evidence is often generated under controlled conditions that do not fully reflect the complexity of everyday clinical practice. For this reason, I adopt a critical and context-sensitive approach to research findings and focus on tailoring them to the real needs of patients and the contexts in which they function.

In the fields of health psychology and sexology, this primarily involves integrating different approaches. In my clinical work, I do not rely on a single model but combine elements of cognitive behavioral therapy with nutritional approaches, while also taking into account the role of body image, emotions, and sexuality. It is also essential that scientific knowledge is translated into concrete tools and strategies that can be applied in practice. This applies both to individual patient care and to system-level interventions. Through my collaboration with local government, I am involved in projects aimed at implementing evidence-based solutions in school settings, particularly in the area of overweight and obesity prevention. These experiences demonstrate that effective knowledge translation requires consideration not only of the intervention itself, but also of the conditions of its implementation, organizational constraints, and the specific characteristics of the target population. For this reason, my approach can be described as integrating evidence-based practice with a strong focus on context and real-world feasibility. I believe that only in this way is it possible to develop solutions that are not only effective in research settings but also work in practice.

What are the principal epistemological and clinical challenges currently shaping the field of clinical sexology in Central and Eastern Europe?

One of the main challenges in clinical sexology is the strong influence of cultural, social, and individual factors, as well as their complex interactions. In practice, this means that sexual health problems rarely have a purely individual nature. They are shaped by social norms, the level of openness within a given environment, beliefs about sexuality, as well as personal experiences and patterns of emotion regulation. In many countries, factors such as taboo, shame, and limited space for open discussion about sexuality still play a significant role. This contributes to lower rates of help-seeking, delayed diagnosis, and difficulties in accurate recognition of these problems. At the same time, clinical practice shows that these social influences intersect with individual psychological mechanisms, such as body image, anxiety, guilt, and difficulties in relationships. As a result, sexual health problems are often complex and multidimensional. For this reason, one of the key challenges is to develop approaches that integrate clinical perspectives with an understanding of the broader social and cultural context. This involves not only addressing symptoms, but also working with the beliefs, norms, and experiences that contribute to them. I believe that only such a comprehensive approach allows us to effectively respond to patients' needs and to advance clinical sexology in a way that is truly relevant to the realities of our region. This perspective is consistent with the biopsychosocial model of sexual health, which emphasizes the dynamic interaction between biological, psychological, and sociocultural factors.

How do sociocultural determinants influence the reporting, diagnosis, and treatment of sexual and mental health disorders?

Sociocultural determinants influence the entire process related to mental and sexual health, from the moment a person recognizes a problem to the course of treatment. At the stage of reporting difficulties, social norms, levels of stigma, and the degree of openness within a given environment play a key role. In many cases, shame, guilt, or the belief that certain topics should not be discussed lead individuals to delay seeking help or to minimize their symptoms. These same factors also affect the diagnostic process. Patients do not always disclose the full extent of their difficulties, and at the same time, healthcare professionals operate within specific cultural frameworks that may shape how symptoms are interpreted. As a result, diagnosis may be delayed or not entirely accurate. During treatment, sociocultural factors continue to play an important role. They can influence a patient's willingness to engage, the level of trust in the clinician, and the acceptance of proposed therapeutic approaches. Beliefs about health, the body, and sexuality can either support or hinder the process of change. From a clinical perspective, this means that these factors need to be considered at every stage of working with a patient. Effective care requires not only medical and psychological knowledge, but also sensitivity to the social and cultural context in which the individual operates. I believe that only such an approach allows for accurate diagnosis and treatment that is truly tailored to the patient's needs.

From an academic perspective, how does interdisciplinary collaboration enhance methodological rigor and innovation in health sciences research?

Interdisciplinary collaboration is no longer an added value but a necessity in health sciences research. This stems from the fact that contemporary health problems are complex and multidimensional, and attempts to explain them from a single disciplinary perspective often lead to oversimplification. From a methodological standpoint, collaboration across

disciplines allows for more precise formulation of research questions, better selection of appropriate methods, and a reduced risk of one-sided interpretation of results. Each discipline contributes its own tools, conceptual frameworks, and ways of understanding a problem, which ultimately strengthens the rigor of the research process. At the same time, interdisciplinarity fosters innovation by enabling the combination of concepts and methods that would not typically emerge within a single field. It is often at the intersection of different perspectives that new questions and novel solutions arise. In my own work, this is particularly evident in research on eating behaviors, mental health, and sexuality. Integrating psychological, clinical, and public health perspectives not only improves our understanding of these phenomena but also supports the development of solutions that can be effectively applied in practice. I believe that the greatest value of interdisciplinary collaboration lies in its ability to bring research closer to real-world complexity, allowing us to move beyond simplified models and better capture how individuals function within their natural environments.

Which core competencies should be emphasized in medical and psychology curricula to better prepare professionals for addressing complex biopsychosocial health issues?

In my view, one of the key challenges in educating future professionals is shifting the focus from the transmission of knowledge toward the development of practical and reflective competencies. In clinical work, knowledge of guidelines or biological mechanisms alone is not sufficient. Equally important are the ability to understand behavior, work with emotions, and build a therapeutic relationship. For this reason, educational programs should place strong emphasis on communication skills, the ability to conduct conversations in an empathetic manner, and the capacity to adapt one's approach to the individual situation of the patient. Another essential component is the development of biopsychosocial framework for understanding health and illness. Students should learn to view health problems not only through the lens of symptoms, but also in the context of lifestyle, environment, social relationships, and psychological factors. Equally important is the cultivation of critical thinking and reflective capacity, understood as the ability to evaluate the quality of scientific evidence, recognize the limitations of research, and consciously reflect on one's own clinical decisions. In a rapidly evolving field such as health sciences, the ability to critically select and interpret information, as well as to engage in self-reflection, becomes essential. It is also crucial to prepare future professionals to support behavior change. In many areas of health, long-term outcomes depend on sustained changes in habits, yet this remains one of the most challenging aspects of clinical practice. Therefore, competencies extending beyond theoretical knowledge are needed, including an understanding of motivation, resistance, and the maintenance of behavioral patterns. From my teaching experience, the most valuable forms of education are those based on case work, the analysis of real clinical situations, and the integration of multiple perspectives. I believe that the future of medical and psychological education should move toward a stronger integration of theory and practice and toward preparing professionals to work with the patient as a whole, rather than focusing solely on symptoms.

How do you assess the impact of digital health technologies, including telemedicine and e-mental health interventions, on clinical outcomes and patient engagement?

Digital health technologies have significant potential, particularly in increasing access to support and ensuring continuity of care. Solutions such as telemedicine and e-mental health interventions make it possible to reach individuals who, for various reasons, do not use traditional forms of care, and they

can also support patients between appointments. At the same time, their effectiveness does not depend solely on the technology itself, but on how it is integrated into broader care pathways and adapted to users' psychological needs. Based on my research experience, key factors include usability, the level of patient engagement, integration with existing care systems, and the involvement of healthcare professionals. In practice, this means that digital technologies work best when they are part of a broader therapeutic process rather than a substitute for it. These issues are also being explored in the MoodBites project, which focuses on the use of digital tools to support behavior change in eating habits and the development of a healthier relationship with food. Insights from this work further confirm that the effectiveness of digital interventions depends largely on their alignment with users' psychological needs and the broader context in which they are implemented. An important and often overlooked aspect is understanding why a patient chooses this form of support. In some cases, a preference for remote contact may be driven by practical barriers, but it may also be linked to relational difficulties, avoidance of direct interaction, or social anxiety. In such situations, relying exclusively on digital tools may, in some cases, reinforce avoidance patterns described in clinical psychology rather than resolve the underlying difficulties.

It is also important to acknowledge the limitations. Some patients may struggle to maintain long-term engagement, and the lack of direct contact can affect the quality of the therapeutic relationship. Digital inequalities and varying levels of digital literacy also remain significant challenges. For these reasons, when assessing the impact of digital health on clinical outcomes and patient engagement, I emphasize the importance of context and the quality of implementation. Technology alone does not guarantee effectiveness, but well-designed and appropriately implemented solutions can significantly support both treatment and prevention. I believe that the future of this field depends not so much on the development of new tools, but on our ability to meaningfully integrate them into clinical practice and align them with the real needs of patients.

In your view, which emerging research directions in health psychology and sexology hold the greatest potential for advancing both theoretical understanding and clinical practice?

In my view, the greatest potential lies in research directions that combine a deeper understanding of social and psychological mechanisms with their direct application in clinical practice and public health. One such area is the further integration of psychology with medicine, particularly in the context of the relationship between mental and physical health. It is increasingly clear that factors such as eating behavior, body image, and emotion regulation play a significant role in the development of many health conditions.

Another important direction is the advancement of research on behavior change. While we already know a great deal about what is considered healthy, we still know much less about how to effectively support individuals in achieving sustainable changes in their habits. This applies both to mental health and to the prevention of non-communicable diseases. Personalization of interventions is also of growing importance, meaning the adaptation of therapeutic approaches to the individual characteristics, life context, and resources of each patient. In this area, digital technologies may play a valuable role, provided they support rather than replace the therapeutic relationship. From a sexological perspective, it is also important to further explore the influence of cultural and social factors on sexual functioning and to develop approaches that account for this complexity in clinical practice.

At the same time, I believe that particularly promising research directions are those that fully embrace the multidimensional nature of the

phenomena being studied and integrate multiple perspectives. There is also a growing need for a more reflective approach, one that involves asking fundamental questions such as why we observe certain phenomena, what if our existing assumptions are incomplete or inaccurate, and whether we are truly moving in the right direction in our interpretations. In my view, this kind of reflexivity and openness to revising our assumptions has the greatest potential to advance both theoretical understanding and clinical practice. These observations are consistent with contemporary biopsychosocial and transdiagnostic frameworks, which emphasize the interplay of multiple levels of influence rather than single-factor explanations.

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Longevity Medicine

Dr.med. Univ. Ivana Gajic Hoffman is a board-certified surgeon with over a decade of clinical experience. After graduating from medical school in 2012, she completed her postgraduate clinical internship at the University of Oxford. She then continued her surgical training in Germany and obtained her board certification in Munich in 2021. During her surgical training, she was actively involved in clinical research alongside her operative practice.

Her extended experience treating patients with advanced chronic and metabolic conditions fundamentally shaped her clinical perspective. Repeated exposure to late-stage disease reinforced the importance of upstream intervention, which ultimately led her to shift her focus toward regenerative and preventive health.

She now specializes in regenerative aesthetics and longevity medicine, integrating surgical precision with systems-based, evidence-informed preventive frameworks. Her academic training includes executive education in lifestyle and longevity medicine through Harvard Medical School and the Geneva College of Longevity Science. Based in Zurich, Switzerland, she practices at AUMAR Longevity Aesthetics, where she integrates regenerative and biostimulators approaches with individualized longevity strategies that prioritize biological resilience, tissue integrity, and measurable improvements in healthspan.

She recently served as a key speaker at ETH Zurich, delivering a lecture on the biological foundations of aging and the clinical application of longevity science in modern preventive medicine. In addition to her clinical practice and academic engagement, she contributes expert perspectives on longevity science to specialized publications in the field.

After more than a decade in General Surgery, including emergency medicine and complex hospital cases, what pivotal clinical insight led you to transition from acute intervention to a proactive longevity and regenerative model of care?

After more than a decade in general surgery and acute care, one insight became increasingly clear to me: we are exceptionally good at intervening in crisis, yet we still invest too little in preventing the trajectory that leads patients there.

In the operating room, I repeatedly saw the downstream consequences of metabolic dysfunction, chronic inflammation, and progressive tissue degeneration. These were rarely isolated events - they reflected years of accumulating risk.

Over time, that shifted my focus toward upstream medicine: metabolic health, inflammation control, tissue resilience, and lifestyle-based recovery capacity. Longevity medicine, when practiced rigorously, allows us to intervene before pathology becomes irreversible. It is not about age manipulation; it is about preserving biological integrity and extending healthspan through objectively tracked interventions.

As a board-certified surgeon trained in Germany and educated across institutions such as Oxford, Göttingen,

and Regensburg, how has your surgical background shaped your standards of precision and risk assessment within aesthetic and longevity medicine?

Surgery teaches deep respect for anatomy, physiology, and complication management. It also teaches humility - because biological systems do not tolerate carelessness. In the operating room, precision is non-negotiable, and risk is never theoretical.

That mindset shapes how I practice aesthetic and longevity medicine. It strengthens anatomical precision, especially in regenerative and injectable procedures where millimeters matter. It also instils a disciplined approach to safety: every intervention is preceded by a structured assessment of potential complications and clearly defined preventive safeguards. Finally, it sharpens decision thresholds - just because something can be done does not mean it should be done.

For me, longevity protocols should be held to the same standard: clear indication, evidence-based reasoning, careful risk–benefit evaluation, and objective endpoints. Without that, "optimization" becomes experimentation - and that is not acceptable in responsible medicine.

Your continued academic training at institutions such as Harvard Medical School and Geneva College of Longevity Sciences reflects a strategic evolution toward longevity medicine and lifestyle-based prevention. What are the most transformative scientific developments in aging biology that you believe will redefine preventive medicine in the next decade?

What will redefine preventive medicine in the next decade is less a single "breakthrough" and more a shift in how we measure, model, and intervene on aging.

We are moving from treating age-related disease to tracking biological aging trajectories. Advances in epigenetic profiling and layered biomarker assessment increasingly allow us to distinguish chronological age from biological pace - and to monitor whether interventions meaningfully change that trajectory.

At the mechanistic level, developments in cellular senescence, chronic inflammatory signaling, mitochondrial resilience, and metabolic flexibility are reshaping how we understand risk accumulation across organ systems. In parallel, regenerative approaches are evolving toward supporting tissue integrity and extracellular matrix quality - visible in skin longevity, but reflective of broader principles of structural biology.

Ultimately, the most transformative change will be methodological: prevention is becoming data-informed, longitudinal, and systems-based, with outcomes evaluated over time rather than promised upfront. The future of longevity medicine will be defined by measurable shifts in healthspan and functional capacity, not hype.

Having completed executive education at Harvard Medical School in Nutrition and Wellness Coaching, how do you integrate structured lifestyle medicine frameworks into clinical practice without compromising medical rigor?

Lifestyle medicine, when practiced seriously, is not an addition to medical care - it is its foundation. The challenge is not whether to integrate it, but how to implement it without losing medical precision.

For me, the anchor is measurement. Nutrition, sleep, physical activity, stress regulation, and behavioral change are not treated as abstract concepts; they are linked to objective physiological markers, metabolic and inflammatory parameters, body composition, cardiovascular fitness, and autonomic function. When lifestyle interventions are tied to quantifiable change, they become clinical strategies rather than motivational rhetoric.

Equally important is structure. Training in nutrition and wellness coaching offers frameworks for communication and behaviour change, but those frameworks must operate within medical boundaries: individualized plans, evidence-informed decisions, and continuous reassessment. If an approach does not produce meaningful improvement, it is adjusted or discontinued.

In that sense, lifestyle medicine does not dilute medical rigor - it expands it. It allows us to intervene earlier, influence modifiable drivers of disease, and build resilience before it manifests. The standard remains the

same: clear indication, defined outcomes, and long-term accountability.

You combine surgical expertise with aesthetic medicine and skin longevity. In your view, how should aesthetic interventions evolve to move beyond appearance and become part of a comprehensive regenerative health strategy?

Aesthetic medicine has already begun shifting toward regenerative principles. The field is moving beyond simple volume replacement and surface-level correction toward approaches that respect tissue biology and long-term structural integrity.

In my view, the next step is consistency and depth. Regenerative interventions should not be applied as isolated techniques, but integrated into a structured framework that prioritizes tissue quality, extracellular matrix support, and controlled biostimulation. The goal is not overcorrection, but preservation, maintaining anatomical harmony while supporting endogenous repair mechanisms.

Equally important is systemic context. Skin does not age independently of the rest of the body. It reflects metabolic health, inflammatory burden, oxidative stress, and hormonal balance. A comprehensive regenerative strategy therefore connects internal physiology with external interventions. Treating the visible surface while ignoring systemic drivers limits long-term outcomes.

When aesthetic medicine aligns regenerative techniques with measurable health parameters and disciplined patient selection, it becomes part of a broader longevity strategy, not separate from it.

Longevity medicine is rapidly expanding, yet often lacks standardization. What distinguishes evidence-based longevity practice from trend-driven optimization culture?

Longevity medicine is expanding rapidly, but growth alone does not equal maturity. The distinction between evidence-based practice and trend-driven optimization lies primarily in methodology and accountability.

Trend-driven optimization often begins with the intervention: a molecule, a device, a protocol and then searches for justification. It tends to stack therapies, combine supplements, peptides or manipulate hormones without clearly defined indications, safety margins, or long-term outcome data. The language is persuasive, but the structure is often reactive and commercially influenced.

Evidence-based longevity medicine works in the opposite direction. It begins with comprehensive baseline assessment: metabolic status, inflammatory markers, body composition, cardiovascular risk, hormonal context, and functional capacity. Interventions are introduced stepwise, within defined physiological boundaries, and linked to measurable outcomes. If there is no objective improvement, the strategy is reassessed.

Restraint is part of professionalism. Not every deviation needs aggressive correction, and not every emerging therapy belongs in routine practice. Responsible longevity medicine prioritizes safety, longitudinal follow-up, and transparent communication about what is established versus still evolving.

Optimization culture seeks maximal intervention; evidence-based longevity seeks sustainable trajectory improvement with measurable impact on healthspan and risk reduction.

Your career spans hospital-based surgery, emergency medicine, private aesthetic practice in Zurich, and academic affiliation with Harvard. How do you maintain scientific credibility while operating in a commercially evolving field such as aesthetics and longevity?

Operating at the intersection of surgery, aesthetics, and longevity requires clear internal standards. Scientific credibility is not something you declare; it is something you protect through structure and restraint.

Commercially evolving fields create pressure to adopt new technologies quickly. Innovation is valuable, but speed must not replace evaluation. For me, credibility is maintained through a consistent approach: understanding the level of evidence, assessing biological plausibility,

reviewing safety data, and applying interventions only within clear indication boundaries.

Transparency matters equally. Patients should understand what is well established, what is emerging, and where evidence is still developing. When expectations are aligned with data rather than marketing narratives, trust becomes durable. Continuous education plays here a critical role - it keeps practice anchored in critical thinking rather than commercial momentum.

Credibility in aesthetics and longevity is preserved through careful adoption of innovation, refusal of overtreatment, and outcome tracking that prioritizes patient safety above all.

Working across Switzerland, Germany, and international academic networks, what differences do you observe in how European and U.S. systems approach preventive and longevity-focused care?

From my perspective, there are meaningful structural and cultural differences in how preventive and longevity-focused care is approached in Europe versus the United States.

In the U.S., innovation moves quickly. There is a strong entrepreneurial culture in medicine, and advanced diagnostics and personalized protocols are adopted rapidly. Patients are often willing to invest privately in prevention, which accelerates implementation, sometimes faster than long-term outcome evidence can fully mature.

In many European systems, including Switzerland and Germany, care tends to be more guideline-driven and conservative. Prevention is often integrated through established frameworks, but reimbursement models and regulatory pathways can slow adoption of newer longevity interventions. This can protect patients from premature implementation, while also limiting how quickly individualized prevention evolves beyond standard screening models.

The advantage of the U.S. model is agility; the advantage of the European model is clinical caution. The best future approach will combine innovation with safety and speed with accountability.

In complex surgical environments, decision-making is immediate and high-stakes. How has that experience influenced the way you assess long-term health optimization protocols today?

Working in complex surgical and emergency environments teaches clarity under pressure. Decisions are immediate, consequences are tangible, and there is no space for ambiguity. That experience fundamentally shapes how I evaluate long-term health optimization strategies today.

First, it instills prioritization. In surgery, you address what carries the greatest risk first. I apply the same principle to longevity medicine. Instead of layering multiple interventions, I identify the highest-impact variables and address them systematically.

Second, it reinforces respect for unintended consequences. Every surgical intervention carries downstream effects. Similarly, aggressive optimization protocols can disrupt hormonal balance, metabolic stability, or immune regulation if applied without clear indication. My threshold for intervention is therefore deliberate rather than impulsive.

Finally, surgical training cultivates accountability. Outcomes are measured, complications are documented, and decisions are reviewed. I bring that same longitudinal mindset to preventive care. Protocols are not static prescriptions; they are dynamic strategies that require reassessment and adjustment over time.

High-stakes medicine ultimately teaches precision and responsibility. Those principles are equally relevant when the goal is not saving a life in crisis, but preserving its quality and functional capacity over decades.

You emphasize comprehensive assessments and individualized strategies. What biomarkers, imaging tools, or diagnostic frameworks do you consider essential when designing a personalized longevity roadmap?

A personalized longevity roadmap begins with clarity about the biological starting point. Without baseline data, “optimization” becomes guesswork.

At the core, I prioritise metabolic and cardiovascular risk assessment: glucose regulation, insulin dynamics, lipid patterns, inflammatory markers, and body composition. Metabolic dysfunction remains one of the strongest predictors of long-term morbidity and it is often modifiable when detected early. Inflammatory status is equally important. Chronic low-grade inflammation underlies many age-related conditions, so markers such as hs-CRP and homocysteine can add meaningful insight into systemic stress and vascular risk.

Hormonal context must be interpreted individually rather than through generic reference ranges. Thyroid function, sex hormones, and stress-related markers should be assessed within the broader physiological picture, not in isolation. In addition, body composition analysis, ideally via DEXA or comparable technologies, helps differentiate weight from true metabolic risk. Functional metrics matter as well: VO2 max strength, recovery capacity, heart rate variability, and sleep architecture provide dynamic insight into resilience and physiological reserve.

The goal is not to accumulate biomarkers, but to identify patterns. Longevity medicine is most effective when diagnostic tools are integrated into a coherent framework that informs stepwise intervention and ongoing tracking.

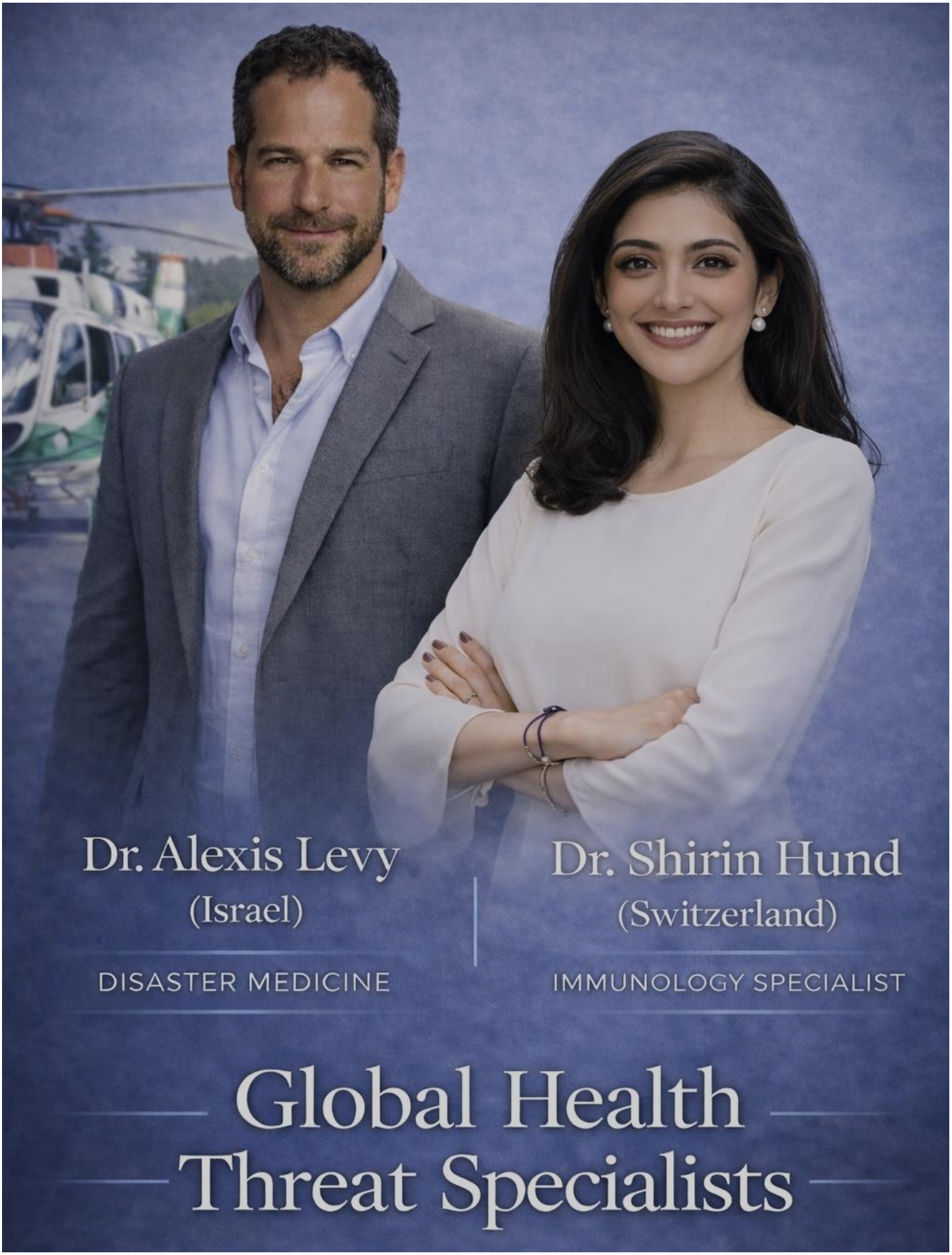
Looking ahead, what will define true leadership in longevity medicine - scientific depth, interdisciplinary integration, surgical foundation, or the ability to translate prevention into measurable outcomes - and where do you see your greatest impact unfolding?

True leadership in longevity medicine will not be defined only by visibility or protocol novelty, but by the ability to translate aging biology into safe, quantifiable, and accountable clinical practice, while maintaining ethical boundaries.

Scientific depth matters, particularly a practical understanding of mechanisms described in the hallmarks of aging framework, such as cellular senescence, mitochondrial dysfunction, dysregulated nutrient sensing, stem cell exhaustion, and chronic inflammation. These are not abstract concepts; they offer a structured lens for understanding how biological risk accumulates and where intervention is physiologically justified.

But knowledge alone is not sufficient. The field needs clinicians who can turn insight into coherent care models: clear baseline assessment, intelligent prioritization, phased intervention, defined safety margins, and longitudinal follow-up. Patients do not benefit from theoretical expertise or protocol stacking - they benefit from strategies that demonstrably improve healthspan, resilience, and functional capacity over time.

Where I see my greatest impact unfolding is in translating this biological framework into precise clinical execution - bridging prevention and regenerative medicine with outcome accountability, not promises.


Dr. Alexis Levy
(Israel)
DISASTER MEDICINE
Dr. Shirin Hund
(Switzerland)
IMMUNOLOGY SPECIALIST
Global Health
Threat Specialists

Disaster Medicine

Alexis Levy, MD : Disaster & Emergency Medicine Expert. C4: 'Command, Control, coordination and communication'; Tactical Commander. Crisis and Emergency Management | MEDINT | TRAUMA - Surgical Competence. Research fellow in Disaster Medicine Counter- Terrorism Medicine at Harvard Medical School

Dr. Levy, what initially drew you to the field of Disaster and Emergency Medicine, and how has your mission evolved over the years?

The essence of leadership in this field is about laser focus, prioritization, and resource allocation. It's the role of the Amenat (*a conceptual term derived from the Semitic root associated in Biblical Hebrew with faithfulness, trust, and entrusted responsibility. Amenat denotes a moral trustee),* the Orchestra Conductor, who is essential to know what is urgent and what is not urgent, what we know and what we don't know, and how to refer the problem to those who know how to solve it. This is a time-dependent process that implies a laser focus mindset, physical, and even spiritual determination.

You have extensive experience in counter-terrorism and crisis medicine. How do you integrate these two disciplines in your daily medical practice?

The integration of CT and CM happens daily by applying the Amenat Mindset across four key areas:

Prioritization: Triage is adapted for the threat environment, shifting the focus to tactical urgency (securing the environment, controlling immediate hemorrhage, preventing further harm).

Information Management: Beyond patient vitals, we gather intelligence—actively searching for secondary devices, active shooters, and CBRN risks, and synthesizing operational data from security forces.

Resource Allocation: The Amenat orchestrates the allocation of the right specialized resource at the right time (e.g., directing HazMat teams versus trauma surgeons).

Mindset: Maintaining the physical, even spiritual, determination to execute protocols perfectly under the extreme duress of a dynamic, chaotic, and hostile environment.

From your perspective, what are the biggest challenges that modern healthcare systems face in preparing for large-scale emergencies or conflicts?

The challenges are prioritized by addressing the most fundamental failures first: the human and the organizational.

Priority 1: Human Resilience and Cognitive Load
The single greatest challenge is the failure to train

professionals and leadership (the Amenats) to maintain high-performance cognitive, emotional, physical, and spiritual determination under sustained extreme pressure. This leads to rapid decision-making degradation and systemic staff attrition.

Priority 2: Political Operative Dissociation and Systemic Disorganization
This is the organizational and political failure to execute a unified response, known as Political Operative Dissociation (a concept from former Mossad Director Ephraim Halevy). This disconnect between political leadership (focused on optics) and field responders (focused on saving lives) undermines the Incident Command System (ICS), specifically hindering C5 (Consensus) and C6 (Continuity), and prevents the system from codifying lessons learned.

Priority 3: Systemic Fragility and the Cyber-Physical Threat
The inherent fragility of modern systems is a major threat. This includes dependence on "just-in-time" supply chains (lean logistics) and the threat of sophisticated cyber-attacks aimed at paralyzing electronic health records and logistics—a form of warfare we are still poorly equipped to defend against.

You've worked across multiple regions – the EU, Israel, and Latin America. How do differences in healthcare systems influence the management of medical crises?

My experience across the EU, Israel, Latin America, and the US shows the core difference lies in the Speed of Mobilization and Standardization of the Trauma System.

Primary Crisis Management Driver	Key Vulnerability in Crisis
Contextual Imperative (Integrated, Agile, Trauma-Focused)	Minimal Political Operative Dissociation in crisis
Centralized Bureaucracy	Administrative Speed and Cross-Border Consensus (C5 failure)
Individual Expertise/ Disparity	Systemic Resource Allocation and Logistics (Failure to scale)
Specialization/ Fragmentation	Horizontal Coordination Across Jurisdictions (C4 failure)

Could you tell us more about your involvement with the World Association for Disaster and Emergency Medicine (WADEM) and your current projects there?

My involvement with the World Association for Disaster and Emergency Medicine (WADEM) is centered on translating operational lessons into standardized science and regional capacity.

Scientific Contribution: I presented "Counter-Terrorist Medicine: It Is Time," co-authored with Dr. Gregory Ciottone (Harvard), advocating for the formalization of the discipline. This was fueled by observing critical Civil-Military Dissociation failures in events like the Paris attacks (e.g., diverting victims to a hospital lacking neurosurgery).

Regional Leadership: I co-founded the Latin America and the Caribbean (LAC) Chapter of WADEM in 2017 to address systemic gaps in the region.

Current Project: I proposed the creation of a Disaster Medical Alliance for LAC to WADEM President Dr. Don Donahue, replicating the European model he promoted. This international, inter-agency task force is designed to use evidence-based academic context to force cooperation and overcome regional systemic fragmentation.

During the COVID-19 pandemic, you operated globally as a frontline expert. What key lessons did you take away from that experience?

The pandemic was a prolonged, systemic disaster that exposed profound failures in ethics and governance.

The Core Lesson: Political Infiltration of Medicine: The crisis demonstrated a profound Political Operative Dissociation, including the suppression of scientific inquiry (e.g., the marginalization of Prof. Luc Montagnier and Prof. David Baltimore regarding viral origin) and the erosion of scientific standards, underscoring the necessity for physicians to defend the integrity of medical science against political agendas.

Clinical Adaptability: I adapted my surgical and Anesthesiology knowledge to pivot to the areas of most critical need—rapidly developing and managing COVID-specific ICUs—proving the Amenat Mindset must be willing to step outside its primary specialty.

Systemic Failure: The crisis exposed the failure of Human Resilience (Priority 1) due to moral injury and the collapse of Systemic Fragility (Priority 3) due to dependence on "just-in-time" global supply chains.

The term “Red Teaming” appears in your profile. Could you explain how this concept applies to medicine and crisis management?

Red Teaming is the systematic practice of thinking like the adversary to identify and exploit your own vulnerabilities. It is not just an operational tool; it is a defense of the core ethical duty of the physician.

Philosophical Context: Red Teaming challenges the institutional "Security First" paradigm by exposing how policies designed to protect responders can lead to denial of access and force the physician to betray their moral imperative to provide Health Care in Danger, which demands putting one's life on the line when necessary.

Operational Value: It generates uncomfortable truths by testing the Amenat Mindset under compounded stress and targeting the flaws in communication and logistics, validating the preparedness plan against its most intelligent adversaries.

Diplomatic Necessity: The term, borrowed from military and intelligence backgrounds, is often misunderstood by the general public and confused with cyber security testing, requiring diplomatic framing as an "ethical audit" or "stress-test for resilience."

How do you see the future of Disaster Medicine evolving, especially with the growing threat of global instability and technological warfare?

The future must evolve in the context of the Third World War—a conflict of asymmetric, technological, and political warfare—with three priorities:

Priority 1: Ethical and Governance Mandate
The field must actively resist passive observation, honoring the moral imperative that "The world will not be destroyed by those who do evil, but by those who watch them without doing anything." This requires institutional resistance to political pressure, defending scientific integrity, and broadening the definition of disaster to include complex crises like Human Trafficking.

Priority 2: Digital Defense and Ethical Technological Application
We must elevate cyber resilience to a core competency, defending the digital front line while resisting the ethical failure of commercialization that often uses "Disaster Medicine" as stolen honor for projects that fail to address core humanitarian priorities. Systems must instantly revert to analog operations.

Priority 3: Remote and Autonomous Care
Technology must be ethically applied to bypass physical danger. This includes utilizing drones and ground robotics

for autonomous delivery and triage, and implementing AI-Powered Command for real-time logistics and strategic resource optimization.

You've collaborated with international elite networks. What role does global cooperation play in medical disaster response and preparedness?

Global cooperation is non-negotiable because NCI/MCI events are too complex for any single nation to manage. It operationalizes the principle that where the victim is, the disaster medicine has to be.

Standardization: Networks like WADEM establish global standards (e.g., ICS/C6) that allow teams from disparate regions to achieve immediate interoperability. Knowledge Transfer: Cooperation accelerates the transfer of critical operational lessons (e.g., from counter-terrorism to global health) and enables international Red Teaming.

Surge Capacity: International alliances create pre-authorized mechanisms for cross-border logistical and medical resource sharing, bypassing political delays and providing the necessary surge capacity that local systems cannot afford to maintain alone.

Could you tell us more about The Key Friction Points Between Security and Medical Teams?

The greatest failure is the conflict of primary duty—the clash between the "Security First" and "Care First" paradigms.

Friction 1: Access Delay: Security prioritizes perimeter safety, delaying medical access to the hot zone during the critical "golden hour," causing preventable fatalities.

Friction 2: Command Interference: Security dictates medical flow based on non-medical criteria (e.g., crime scene preservation), undermining the medical commander's C2 (Control).

Friction 3: Information Hoarding: Security's need for OPSEC leads to the withholding of crucial intelligence (e.g., specific threat agents) that the medical team needs for triage and treatment.

Solution: Requires joint, immersive training where security learns basic tactical medicine and medical teams learn necessary security protocols to build mutual trust.

As a medical professional and strategist, what advice would you give to young doctors who wish to specialize in Disaster or Emergency Medicine?

Young doctors must embrace a trinity of competencies beyond standard medical training:

Master the Self-Determination of the Physician (The Mindset): Own the moral duty to provide Health Care in Danger and resist Political Operative Dissociation. Develop the Amenat Mindset through training in cognitive load management.

Acquire Systems Fluency (The Strategy): Obtain postgraduate degrees in Logistics or Public Health to understand systemic failures (Priority 2 and 3). Become fluent in ICS/C6 and seek Red Team Exposure to validate resilience.

Embrace Global Experience (The Execution): Join global networks like WADEM. Be prepared to pivot your core skills (e.g., from trauma to logistics) to fill the operational gap the disaster creates, and dedicate your expertise to complex crises like Human Trafficking.

Finally, what motivates you personally to continue working in such a high-pressure, high-impact field of medicine?

My motivation is not merely professional; it is profoundly personal and historical. As the grandson of a Holocaust survivor—my grandmother arrived in Argentina at age nine after surviving the Holocaust—I have the legacy of resistance, survival, and the warrior spirit in my blood.

This heritage compels me to ask: What would I do to help a nine-year-old girl born into today's complex crises? The answer is guided by the core ethical principle from the Talmud: "Whoever saves a single life saves an entire world." This is the operational mandate of Disaster Medicine: reducing morbidity and mortality. My life's work is dedicated to being the Amenat—the strategic conductor—who ensures that every effort is made to save that single life, thereby defending the entire world against the failures of the past and the threats of the present.