Advanced Medicine and Regenerative Therapies

When conventional approaches are no longer enough

Some patients come to me because they are searching for a more advanced option. Others have already tried numerous treatments but still feel that the underlying problem has not been adequately understood.

They may be living with progressive joint degeneration, impaired mobility, neurological symptoms, autoimmunity, persistent infection, immune dysfunction, metabolic disease or the long-term consequences of injury. Some are seeking additional support during cancer treatment, while others want to protect their function, resilience and quality of life as they age.

Advanced treatment should not mean selecting the most impressive-sounding therapy or combining as many interventions as possible. It should begin with a clear understanding of the patient, the biological problem being addressed and what the treatment is realistically intended to achieve.

I assess the complete case, review previous investigations and treatments, identify the most relevant priorities and develop an individualised strategy. Where a specialised procedure is appropriate, I collaborate with medical teams and clinics in Romania, Lithuania, Dubai and Vienna that perform the treatment and provide the necessary medical supervision.

Who may benefit from an advanced assessment?

My work includes children, adults and older patients with diverse and often interconnected health concerns.

Areas in which advanced or regenerative therapies may be considered include:

- Osteoarthritis, joint degeneration and chronic pain
- Reduced mobility and age-related functional decline
- Muscle, tendon, ligament and sports injuries
- Neurological conditions
- Stroke and neurological recovery
- Multiple sclerosis and autoimmune neurological disease
- Autism and delayed development
- PANS/PANDAS and complex neuroimmune presentations
- Autoimmune diseases
- Chronic infections and immune dysfunction

- Long COVID and post-infectious syndromes
- Metabolic disease
- PCOS, endometriosis, thyroid conditions and wider hormonal imbalances
- Longevity and healthy ageing
- Cancer support and immuno-oncology
- Aesthetic and skin regeneration
- Gut dysbiosis, intestinal inflammation and persistent gastrointestinal conditions

The presence of one of these conditions does not automatically mean that an advanced therapy is suitable. The decision depends on the patient's history, current health, immune function, treatment objectives, previous response and the quality of evidence relevant to that particular application.

A treatment strategy - not a menu of procedures

The same treatment can have a very different purpose in different patients.

A therapy considered for local joint degeneration is not approached in the same way as one considered for neurological recovery, immune dysfunction or cancer support. Likewise, two patients with the same diagnosis may require completely different strategies because their inflammatory state, immune competence, metabolic health and capacity for repair are not the same.

Before recommending an advanced treatment, I consider questions such as:

- What is the principal biological problem?
- Is the objective immune modulation, tissue repair, neurological support, metabolic recovery or local regeneration?
- Is there active infection or uncontrolled inflammation?
- Is the immune system overactive, suppressed or poorly coordinated?
- Are there nutritional, gastrointestinal or mitochondrial factors that may affect the response?
- What treatments have already been attempted?
- Does the patient have the capacity to tolerate the proposed intervention?
- Is a local or systemic approach more appropriate?
- What can realistically be monitored after treatment?

This allows the advanced therapy to become part of a coherent clinical plan rather than an isolated procedure.

What working together looks like

The process begins with an online consultation.

Before or during this consultation, I review the patient's history, diagnoses, previous investigations, current treatment, treatment response and main clinical objectives. I then identify the most important priorities and develop an individualised plan.

Some patients require further testing or foundational treatment before an advanced procedure should be considered. Others may already have sufficient medical information to proceed to a specialised assessment.

If an injectable, infusion-based, cellular or other medical treatment is appropriate, I coordinate the next steps with collaborating medical clinics in Romania, Lithuania, Dubai or Vienna. The medical team performs the procedure, provides the necessary medical assessment and determines final eligibility.

Depending on the treatment, this may include:

- Review of medical records and recent laboratory results
- Additional safety or eligibility testing
- Selection of the appropriate treatment and delivery route
- Scheduling at the relevant clinic
- Preparation before treatment
- Medical administration and monitoring
- Follow-up and integration into the wider plan

I remain involved in the strategy and maintain contact with the patient before and after treatment so that the response can be reviewed and the wider plan adjusted where necessary.

Advanced therapies available

Depending on the assessment and medical eligibility, the wider strategy may include biologically produced peptides, cell-based interventions, exosomes, immune therapies, intravenous treatments, platelet-derived therapies and other specialised medical procedures.

These treatments may be used individually or combined where there is a clear rationale. Combination does not automatically mean better. Every component should have a defined purpose.

Biologically produced peptides

I have worked with peptides and advanced biological preparations for three years, including their clinical application, formulation, education and integration into wider treatment strategies.

I do not publish a catalogue of individual peptides because peptide selection should follow a clinical assessment. Different compounds may influence entirely different biological pathways, and a peptide that is relevant to one patient may be unnecessary or inappropriate for another.

The peptides I work with are biologically produced through yeast-based biotechnology rather than being presented simply as conventionally synthesised and manually reconstituted preparations.

They are manufactured in Europe under GMP conditions and supplied as ready-to-use stabilised preparations. Stability testing is used to establish their storage characteristics and shelf life, providing greater formulation consistency and longer stability than conventionally reconstituted peptide preparations.

The patient's condition, objectives, medical history and current treatment are reviewed before a peptide strategy is considered.

Umbilical-cord-derived mesenchymal cells

The cell-based therapies available through collaborating medical clinics use allogeneic cells derived from donated umbilical-cord tissue.

Mesenchymal stromal cells, commonly referred to as MSCs, are being investigated across regenerative and immune-related fields because of the signalling molecules they release and their interaction with inflammatory, immune and tissue-repair processes.

Their proposed role is not simply to transform into replacement tissue. Much of the interest in MSCs concerns their paracrine activity: the biological signals through which cells may communicate with surrounding tissues and influence inflammatory responses, repair processes and the local cellular environment.

Depending on the case, MSC-based approaches may be considered in relation to:

- Joint degeneration and musculoskeletal injury
- Impaired mobility and age-related decline
- Neurological and post-stroke recovery

- Autoimmune and inflammatory conditions
- Selected developmental and neuroimmune presentations
- Post-infectious and immune-related conditions
- Wider regenerative and longevity strategies

The relevance of the therapy, delivery route and wider treatment plan must be assessed individually.

Muse cells

Muse cells - Multilineage-differentiating Stress-Enduring cells - are a specialised cell population found within mesenchymal tissues and cell populations. They are not simply another name for conventional MSCs.

Researchers are interested in Muse cells because of their capacity to tolerate cellular stress, their multilineage potential and their proposed ability to respond to biological signals associated with injured tissue.

Umbilical-cord tissue is one documented source of Muse cells. The Muse-cell preparations available through the collaborating medical network are allogeneic and umbilical-cord derived. There are 2 options, both rich in Muse-cells, however the more expensive option has a minimum 70% Muse-cell withing the cells.

Muse cells are being explored within neurological and regenerative research, including their potential relevance to tissue injury and repair. However, research remains developing, particularly for complex neurological, developmental and neuroimmune conditions.

They are therefore considered as part of an individualised strategy rather than presented as a proven cure or a universal solution.

MSC-derived exosomes

Exosomes are small extracellular vesicles involved in communication between cells. They can carry proteins, lipids and other biological signals from their cell of origin.

MSC-derived exosomes are of interest in regenerative medicine because they may carry some of the signalling activity associated with mesenchymal stromal cells without containing the cells themselves.

Depending on the patient and treatment objective, they may be considered in connection with inflammatory regulation, tissue recovery, neurological support, musculoskeletal regeneration or skin and aesthetic applications.

MSC-derived exosomes may be used independently or incorporated into a broader regenerative plan. Their relevance depends on the clinical objective, the intended delivery route and what other therapies the patient is receiving.

NK-cell-derived exosomes

Natural killer cells are components of the innate immune system involved in recognising stressed, infected or abnormal cells.

NK-cell-derived exosomes carry biological signals associated with the cells from which they originate. Their properties and proposed applications are therefore different from those of MSC-derived exosomes.

They may be considered within selected immune, infectious-disease and immuno-oncology strategies. They can be used independently or combined with other interventions where the clinical rationale supports this.

MSC-derived and NK-cell-derived exosomes are not interchangeable. Their cellular source, intended function, production method, characterisation, concentration, storage and quality control all influence the final preparation.

NK cells and CIK cells

Natural killer cells and cytokine-induced killer cells are immune cells studied and used within cellular immunotherapy.

NK-cell strategies may be considered in selected cases involving immune dysfunction, persistent infectious burdens or immuno-oncology. The objective depends on the patient and must be defined before treatment.

CIK cells are expanded immune-cell populations with characteristics associated with both T-cell and natural-killer-cell activity. Their principal relevance is within cancer-focused cellular immunotherapy.

These treatments require medical assessment, appropriate laboratory preparation and administration through a specialised clinical team. In patients with cancer, they are considered as part of an integrative strategy and not as a replacement for oncology assessment or established oncological care.

Dendritic-cell vaccines

Dendritic cells play a central role in presenting antigens and directing adaptive immune responses.

Dendritic-cell vaccines are personalised immunotherapy approaches designed to expose a patient’s immune system to selected tumour-associated material and encourage a more targeted immune response.

Their application is principally within cancer care and immuno-oncology. Suitability depends on the type and stage of cancer, previous and current treatments, the material available for vaccine preparation and the patient’s overall immune status.

Dendritic-cell vaccination should be coordinated with the patient's oncologist and the specialised medical team responsible for treatment.

IVIG

Intravenous immunoglobulin contains pooled human immunoglobulin G and is used medically in selected immunodeficiency, autoimmune, inflammatory and neurological conditions.

In complex neuroimmune cases, including some PANS/PANDAS presentations, IVIG may be considered where the history, immune findings and medical assessment support its use.

It is not appropriate for every patient with inflammation or autoimmunity. Dose, indication, infusion planning and risk assessment must be determined by the prescribing medical team.

Where relevant, I can help review the wider case, organise appropriate immune investigations and coordinate assessment with collaborating physicians.

GcMAF and immune-directed support

GcMAF is a macrophage-activating preparation connected with vitamin-D-binding protein biology and innate immune signalling.

It may be discussed within selected immune-dysfunction or chronic-infection strategies, but it is not used as a universal immune stimulant. The immune system must first be assessed because a patient with immune suppression, excessive inflammation, mast-cell activation or autoimmunity may require a different approach.

Where considered, it forms part of a broader immune strategy rather than replacing investigation of infections, inflammation, gut health or other biological drivers.

NAD and high-dose vitamin C infusions

Intravenous therapies can be used to deliver selected substances directly into the circulation under medical supervision.

NAD infusions may be considered within metabolic, mitochondrial, neurological, recovery or healthy-ageing strategies. They are not a substitute for addressing the factors contributing to poor metabolic or mitochondrial function.

High-dose intravenous vitamin C has applications that differ from ordinary oral vitamin C supplementation. Its use may be considered within selected medical, recovery and integrative oncology settings.

When used in a patient with cancer, high-dose vitamin C is positioned as supportive care and coordinated with the patient's oncology treatment. Medical screening is required because factors such as kidney function, G6PD status, iron metabolism, medication use and the wider clinical context can affect suitability.

PRP and platelet-derived therapies

Platelet-rich plasma and other platelet-derived preparations use components obtained from the patient's own blood.

Platelets release growth factors and signalling molecules involved in the normal response to tissue injury. Platelet-derived approaches may therefore be considered for:

- Osteoarthritis and joint degeneration
- Tendon and ligament injuries
- Muscle and sports injuries
- Local tissue recovery
- Hair and skin regeneration
- Selected aesthetic applications

These therapies may be used alone or combined with other local regenerative approaches when medically appropriate.

Ozone, plasmapheresis and other specialised treatments

Some cases may warrant consideration of additional medical procedures, including ozone-based approaches, plasmapheresis or other blood- and infusion-based treatments.

These treatments have different mechanisms, levels of evidence and clinical applications. They are not grouped together because they are equivalent, but because each requires medical screening, specialist administration and a clearly defined purpose.

Plasmapheresis, for example, is a medical procedure that removes and replaces part of the plasma and may be used in selected antibody-mediated, autoimmune or neurological situations.

Ozone-based treatments are considered separately according to the patient's condition and the applicable clinical setting.

The inclusion of these options does not mean that they are routinely recommended. They are discussed only when the patient's history and clinical priorities provide a reasonable basis for considering them.

Different delivery routes for different objectives

Treatment can be delivered through different routes depending on the therapy, condition and intended biological target.

Available routes through collaborating clinics may include:

- Intravenous infusion

- Intra-articular injection
- Intrathecal or spinal administration
- Intranasal administration
- Intramuscular injection
- Subcutaneous injection
- Local tissue injection
- Aesthetic or skin application

A more invasive route is not automatically a more effective one. Route selection belongs to the medical decision-making process and depends on the preparation, clinical objective, safety considerations and individual patient.

European biotechnology and quality control

Advanced biological therapies are highly dependent on manufacturing and handling quality. Two products described using the same general term may differ considerably in their identity, purity, concentration, stability and biological activity.

The biological preparations used within the collaborating network are manufactured in Europe using European biotechnology and GMP-controlled production.

Cancer support and immuno-oncology

Patients with cancer often approach advanced medicine while already receiving surgery, chemotherapy, radiotherapy, targeted treatment, hormonal treatment or immunotherapy.

My role is to understand the complete medical picture and identify which supportive or advanced approaches may be compatible with the oncology plan.

Depending on the patient, this may involve consideration of:

- NK-cell or CIK-cell therapy
- Dendritic-cell vaccination
- NK-cell-derived exosomes
- Selected regenerative or immune-directed support
- High-dose intravenous vitamin C
- Metabolic and nutritional support
- Supporting treatment tolerance and recovery
- Protecting mobility, muscle and quality of life

These strategies are complementary to oncology care. They are not presented as replacements for established cancer treatment, and any intervention that could interact with the oncology plan should be coordinated with the treating oncologist.

Advanced treatment still requires foundational work

A sophisticated treatment cannot always compensate for an unrecognised infection, uncontrolled inflammation, severe nutritional deficiency, poor metabolic health or an unsuitable internal environment.

Where relevant, I may assess:

- Immune competence and inflammatory activity
- Persistent or recurrent infections
- Autoimmune and neuroimmune patterns
- Gut dysbiosis and intestinal inflammation
- Mast-cell (MCAS) and histamine-related activity
- Nutritional status
- Mitochondrial and metabolic function
- Blood-glucose regulation
- Hormonal factors
- Kidney and liver function
- Existing medication and treatment interactions

This does not mean that every patient must complete an exhaustive testing package. Investigations are selected according to clinical relevance, previous results and the patient's available budget.

No single advanced therapy is right for everyone

The purpose of an advanced consultation is not to persuade every patient to undergo an expensive procedure.

Sometimes the assessment identifies a strong rationale for a regenerative, cellular or immune-directed treatment. Sometimes it shows that foundational work should come first. In other cases, the expected benefit may not justify the expense, complexity or risk.

Every recommendation should answer three questions:

- Why is this therapy being considered?
- What is it intended to change?

- How will we determine whether it has been worthwhile?

The objective is to give patients access to sophisticated medical options while keeping the strategy individualised, understandable and clinically purposeful.

Arrange an advanced medicine assessment

You may already know which treatment you want to explore, or you may simply want to understand whether an advanced or regenerative approach could be relevant to your condition.

The first step is an online assessment of your medical history, previous treatment, current priorities and realistic options.

Book an advanced medicine and regenerative therapies consultation