Understanding Stem Cell Therapy for Multiple Sclerosis

A Patient Guide from Auragens

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Advancing Regenerative Medicine:
Treatments & Empathy Amplified by Science and Technology

2026

Welcome

If you or someone you love is living with Multiple Sclerosis (MS), you already know that this disease asks a great deal — of your body, your energy, your plans, and your spirit. MS is unpredictable. Its symptoms can be invisible to others yet profoundly felt by those who live with it every day. And despite decades of medical progress, many people with MS still face a future where the tools available to them feel insufficient, particularly as the disease transitions toward its more progressive forms.

At Auragens, we understand this reality. We also believe that science — pursued honestly and compassionately — continues to open new doors. This guide has been prepared to help you understand what mesenchymal stem cell (MSC) therapy is, what the current research shows about its potential role in MS, and what you can expect if you choose to explore a consultation with our team.

This is not a promise of a cure. It is an evidence-based educational resource designed to help you make informed, thoughtful decisions — in partnership with your neurologist, your family, and the Auragens medical team.

We are honored to be part of your journey.

1. Understanding Multiple Sclerosis and Current Treatment Limitations

What Is Multiple Sclerosis?

Multiple Sclerosis is a chronic, immune-mediated disease of the central nervous system (CNS) — the brain, spinal cord, and optic nerves. In MS, the immune system mistakenly attacks myelin, the protective insulating sheath that surrounds nerve fibers and allows electrical signals to travel quickly and reliably between the brain and the rest of the body [1, 2].

When myelin is damaged or destroyed — a process called demyelination — nerve signals slow, become distorted, or fail to reach their destination entirely. Over time, the nerve fibers themselves (axons) may also be damaged or lost, contributing to permanent neurological deficits [1].

MS affects an estimated 2.8 million people worldwide, with onset most commonly occurring between the ages of 20 and 50. Women are approximately two to three times more likely to develop MS than men.

The Main Subtypes of MS

MS does not follow a single path. The most recognized clinical forms include:

- **Relapsing-Remitting MS (RRMS):** The most common form, affecting approximately 85% of people at diagnosis. Characterized by episodes of new or worsening neurological symptoms (relapses) followed by periods of partial or full recovery (remissions). Between relapses, the disease may appear stable, but underlying damage can continue to accumulate.
- **Secondary Progressive MS (SPMS):** Many people with RRMS eventually transition to SPMS, in which disability accumulates more steadily, with or without continued relapses. The shift from relapsing to progressive disease reflects a change in the underlying biology — from predominantly inflammatory to increasingly neurodegenerative.
- **Primary Progressive MS (PPMS):** Approximately 10–15% of people are diagnosed with PPMS, characterized by a gradual worsening of disability from the very beginning, without distinct relapses. PPMS has historically been the most difficult form to treat [2, 3].

Common Symptoms and Disease Burden

MS can affect virtually any function controlled by the nervous system. Common symptoms include:

- Fatigue (often described as one of the most disabling symptoms)
- Muscle weakness, stiffness, and spasticity
- Numbness, tingling, or pain
- Balance and coordination difficulties
- Vision problems (blurred vision, double vision, optic neuritis)
- Bladder and bowel dysfunction
- Cognitive changes (memory, concentration, processing speed)
- Mood disturbances, including depression and anxiety

Symptoms vary widely between individuals and can fluctuate over time. The unpredictability of MS is itself a significant burden for patients and families.

Current Standard Treatments

Over the past three decades, the development of disease-modifying therapies (DMTs) has transformed the management of relapsing MS. More than 20 DMTs are now approved, including:

- **Interferons and glatiramer acetate** — first-generation injectable therapies that modestly reduce relapse rates
- **Oral agents** — including dimethyl fumarate, fingolimod, siponimod, and teriflunomide
- **Monoclonal antibodies** — including natalizumab, ocrelizumab, ofatumumab, and alemtuzumab, which offer higher efficacy but carry greater safety considerations

For progressive MS, ocrelizumab (for PPMS) and siponimod (for active SPMS) represent important advances, though their benefits remain partial and do not apply to all patients [4, 5, 6].

The Limitations of Current Treatments

Despite this progress, significant gaps remain in the management of MS:

1. Limited efficacy in progressive disease. Most DMTs were designed and validated in relapsing MS. In progressive forms — particularly PPMS and non-active SPMS — the majority of these therapies provide limited benefit, and none have been shown to meaningfully reverse disability already accumulated [3, 7].

2. They suppress inflammation but do not repair damage. DMTs are primarily immunomodulatory or immunosuppressive. They can reduce the frequency of new inflammatory attacks, but they do not directly remyelinate damaged axons, replace lost neurons, or reverse the neurodegeneration that underlies progressive disability [1, 2].

3. Remyelination failure. In MS, the brain's natural capacity to repair myelin is impaired. Oligodendrocyte precursor cells — the cells responsible for rebuilding myelin — can be blocked from maturing and completing repair in the hostile environment of chronic MS lesions. When remyelination fails repeatedly, axons lose metabolic support and degenerate irreversibly [1, 8].

4. Safety and tolerability trade-offs. Highly effective therapies often carry significant safety risks, including increased infection susceptibility, rare but serious complications (such as progressive multifocal leukoencephalopathy with natalizumab), or the need for intensive monitoring programs [5, 9].

5. The progressive phase remains a major unmet need. Reviews of progressive MS pharmacotherapy consistently identify the absence of neuroprotective, remyelinating, or regenerative treatments as the most critical gap in the MS therapeutic landscape [7, 3].

Why Regenerative Medicine Is Being Explored

Given these limitations, researchers and clinicians have turned their attention to therapies that might address what DMTs cannot: protecting neurons, supporting remyelination, modulating the chronic inflammatory environment within the CNS, and potentially slowing or stabilizing progressive neurodegeneration. Mesenchymal stem cell therapy — and specifically therapy using human umbilical cord-derived MSCs — has emerged as one of the most actively investigated regenerative approaches in MS [10, 11].

2. What Are hUC-MSCs from Wharton's Jelly?

Understanding Mesenchymal Stem Cells

Mesenchymal stem cells (MSCs) are a specialized type of adult stem cell found in various tissues throughout the body. Unlike embryonic stem cells, MSCs are not pluripotent — they do not give rise to every cell type in the body. Instead, they are known for their remarkable ability to regulate immune responses, reduce inflammation, secrete a wide array of supportive biological signals, and promote tissue repair and regeneration through paracrine (cell-to-cell signaling) mechanisms.

MSCs have been studied in hundreds of clinical trials across a broad range of conditions, including autoimmune diseases, neurological disorders, inflammatory conditions, and tissue injuries. Their safety profile and immunomodulatory properties have made them one of the most widely investigated cell types in regenerative medicine.

What Is Wharton's Jelly?

Wharton's Jelly is the gelatinous connective tissue found within the umbilical cord — the structure that connects a developing baby to the placenta during pregnancy. This specialized tissue is rich in a particular population of mesenchymal stem cells known as **human umbilical cord mesenchymal stem cells (hUC-MSCs)**.

Umbilical cord tissue is collected at the time of birth, with the informed consent of the mother, from healthy, full-term deliveries. The collection process is entirely non-invasive and poses no risk to the mother or newborn. The tissue would otherwise be discarded as medical waste.

Why hUC-MSCs from Wharton's Jelly?

hUC-MSCs derived from Wharton's Jelly offer several properties that make them particularly attractive for therapeutic use:

Primitive and potent. Because they are derived from perinatal tissue, hUC-MSCs are more primitive than MSCs isolated from adult sources such as bone marrow or adipose (fat) tissue. This relative youth is associated with greater proliferative capacity, more robust secretion of growth factors and anti-inflammatory molecules, and stronger immunomodulatory activity.

Low immunogenicity. One of the most significant advantages of hUC-MSCs is their low expression of major histocompatibility complex (MHC) class II antigens — the surface markers that typically trigger immune rejection. This means hUC-MSCs can generally be administered to patients without requiring a tissue match, making them suitable as an "off-

the-shelf" allogeneic (donor-derived) therapy. The immune system is less likely to recognize and attack them.

Rich paracrine secretome. hUC-MSCs release a complex array of biological signals — including growth factors, cytokines, chemokines, and extracellular vesicles — that communicate with surrounding cells to reduce inflammation, support tissue repair, and promote cell survival. Much of the therapeutic effect of MSCs is believed to occur through this paracrine signaling rather than through direct cell replacement.

Exosome-mediated effects. hUC-MSCs produce exosomes — tiny membrane-enclosed vesicles that carry bioactive cargo, including microRNAs, proteins, and lipids — that can cross biological barriers (including the blood-brain barrier) and deliver reparative signals to target tissues. MSC-derived exosomes have shown anti-inflammatory, neuroprotective, and remyelination-supporting effects in preclinical models of neurological disease [12, 13].

Ethical and practical advantages. The collection of umbilical cord tissue at birth is ethically straightforward and raises none of the concerns associated with embryonic stem cell research. Cord tissue can be collected, processed, and banked in large quantities, enabling consistent, scalable production.

From Collection to Treatment

At Auragens, the journey from donor to patient follows a rigorous, multi-step quality process:

1. **Donor screening:** All donors undergo comprehensive infectious disease testing and health screening in accordance with international standards. Donors with any history of communicable disease, genetic disorders, or other disqualifying conditions are excluded.

2. **Tissue processing:** Wharton's Jelly is carefully isolated from the umbilical cord under sterile conditions in a controlled laboratory environment. MSCs are then extracted and cultured through a validated expansion process.

3. **Quality control:** Each cell batch undergoes extensive testing for sterility, viability, identity, potency, and purity before release. Cells that do not meet specifications are not used.

4. **Cryopreservation:** Qualified cell preparations are cryopreserved (frozen) at ultra-low temperatures using validated protocols that preserve cell viability and function until the time of use.

5. **Preparation for infusion:** Prior to administration, cells are thawed and prepared according to standardized protocols, ensuring that each patient receives a consistent, high-quality preparation.

🏆 Why Auragens: AABB Accreditation — The Gold Standard in Cellular Therapy

Auragens Stem Cell Center is proud to be AABB accredited — a critical distinction that sets us apart from unaccredited clinics.

What is AABB Accreditation?

AABB (Association for Advancement of Blood and Biotherapies) is the internationally recognized leader in setting quality and safety standards for cellular therapies. AABB is a deemed status organization by the FDA and AABB accreditation represents the gold standard in the field — the most rigorous, comprehensive certification available for facilities that process and administer cellular products.

What Does AABB Accreditation Mean for You?

When you choose an AABB-accredited center like Auragens, you can trust that we meet the highest international standards in:

- **Cell Processing Excellence:** Our laboratory protocols follow strict, validated procedures ensuring every cell product meets pharmaceutical-grade quality specifications.
- **Donor Screening & Safety:** Comprehensive screening protocols ensure all donor tissue is thoroughly tested and meets stringent safety criteria.
- **Laboratory Practices:** Our facilities, equipment, and processes undergo regular inspection and must meet exacting standards for sterility, environmental control, and quality assurance.
- **Patient Safety:** From cell arrival through administration and follow-up, every step is designed and monitored to protect your safety.
- **Staff Expertise:** Our team maintains specialized training and competency requirements specific to cellular therapy.
- **Traceability & Documentation:** Complete tracking and documentation of every cell product ensures full accountability.
- **Continuous Quality Improvement:** Regular audits, proficiency testing, and quality reviews.

Why This Matters

The field of stem cell therapy is rapidly growing, but not all clinics meet the same standards. Many facilities operate without independent accreditation or oversight. AABB accreditation means an external, U.S., FDA, expert organization has thoroughly inspected and validated our practices — giving you independent verification, proven quality systems, and genuine peace of mind. When you choose Auragens, you're choosing a center that has been independently verified to meet the most stringent international standards for cellular therapy quality and safety.

AABB accreditation is not easy to achieve or maintain — it requires significant investment in infrastructure, training, quality systems, and ongoing compliance. We've made this commitment because you deserve nothing less than the highest standard of care.

3. How hUC-MSCs May Help with Multiple Sclerosis

Multiple Sclerosis involves several overlapping disease processes — immune dysregulation, chronic inflammation, demyelination, and neurodegeneration — that together produce the disability and symptoms patients experience. No single mechanism explains all of MS, and no single therapy addresses all of its dimensions. hUC-MSCs are of particular interest in MS precisely because they may act through multiple complementary pathways simultaneously, addressing several of the unmet needs that current DMTs leave unfulfilled.

The following subsections describe the mechanisms that are most relevant to MS and most supported by the current evidence base. It is important to note that much of this evidence comes from preclinical studies and early-phase human trials; larger controlled trials are still needed to confirm the clinical significance of these mechanisms in MS patients.

3.1 Immunomodulation: Rebalancing a Misdirected Immune System

At its core, MS is an autoimmune disease — the immune system attacks the body's own myelin. hUC-MSCs have demonstrated a remarkable capacity to modulate immune function in ways that may be directly relevant to MS pathology.

In laboratory and early clinical studies, hUC-MSCs have been shown to:

- **Suppress pathogenic T cell activity** — reducing the proliferation and activation of the T cells that drive inflammatory attacks on myelin
- **Promote regulatory T cells (Tregs)** — increasing the population of immune cells that help maintain self-tolerance and suppress autoimmune responses
- **Reduce B cell activity** — downregulating the antibody-producing cells that contribute to myelin damage
- **Downregulate inflammatory gene expression** — including markers such as HLA-B, TNF-alpha, TAP-1, and certain immune activation genes that are elevated in MS

In a Phase I/II clinical study of hUC-MSCs in MS patients, significant immunomodulatory changes were documented after treatment, including upregulation of regulatory T cells and downregulation of antigen-presentation and inflammatory gene expression, consistent with a biological immunomodulatory effect [14].

This capacity to rebalance — rather than simply suppress — the immune system is a particularly appealing property in MS, where long-term immune suppression carries its own risks.

3.2 Neuroprotection: Shielding Neurons and Axons from Damage

Beyond their immune effects, hUC-MSCs release a range of neurotrophic factors — biological signals that support the survival and function of neurons and their axons. These include brain-derived neurotrophic factor (BDNF), nerve growth factor (NGF), neurotrophin-3 (NT-3), vascular endothelial growth factor (VEGF), and others.

In the context of MS, where axonal damage underlies irreversible disability, neuroprotective signaling from MSCs may help:

- Protect vulnerable axons from inflammatory injury
- Support the survival of neurons in demyelinated areas
- Reduce the metabolic stress that exposed axons experience when their myelin is stripped away

Preclinical studies in animal models of MS (experimental autoimmune encephalomyelitis, or EAE) have shown that MSC administration can reduce axonal damage and support neuronal survival, effects attributed in part to trophic factor secretion [10, 15].

3.3 Support for Remyelination: Helping the Brain Repair Itself

One of the most compelling areas of MSC research in MS is the potential to support or enhance remyelination — the process by which myelin is rebuilt around damaged nerve fibers.

The brain has its own repair capacity through oligodendrocyte precursor cells (OPCs), but in MS this capacity is frequently impaired. The inflammatory and cellular environment of MS lesions can block OPCs from maturing into the myelin-producing oligodendrocytes needed for repair.

hUC-MSCs and their secreted factors may help by:

- Modifying the lesion microenvironment to be more permissive for OPC differentiation
- Secreting factors that support oligodendrocyte lineage survival and maturation
- Reducing the inflammatory signals that inhibit remyelination

Preclinical evidence from MSC-treated EAE models shows reductions in demyelination and evidence of myelin repair, though translation of these findings to human MS remains an active area of investigation [10, 12].

3.4 Anti-Inflammatory Effects: Quieting Chronic CNS Inflammation

In progressive MS, inflammation becomes compartmentalized within the CNS — occurring behind the blood-brain barrier where many systemic therapies have limited access. This "smoldering" neuroinflammation contributes to ongoing damage even in the absence of acute relapses.

MSC-derived signals — including anti-inflammatory cytokines such as interleukin-10 (IL-10) and transforming growth factor-beta (TGF-β) — may help reduce this chronic inflammatory activity. MSCs can also influence the behavior of microglia (the brain's resident immune cells), promoting a shift from pro-inflammatory to anti-inflammatory states [13, 15].

This CNS-directed anti-inflammatory potential is of particular relevance to progressive MS, where peripheral immunosuppression is insufficient.

3.5 Exosome Signaling: Delivering Reparative Messages Across the Blood-Brain Barrier

MSC-derived exosomes — nano-sized vesicles packed with microRNAs, proteins, and lipids — represent a particularly exciting frontier in MS research. Unlike intact cells, exosomes can cross the blood-brain barrier and deliver their bioactive cargo directly to cells within the CNS.

In preclinical MS models, MSC-derived exosomes have been shown to:

- Reduce neuroinflammation and demyelination
- Induce regulatory T cells
- Promote neuroprotection and support remyelination
- Modulate microglial polarization toward anti-inflammatory phenotypes

A 2024 review specifically examining MSC-derived exosomes in MS highlighted their potential as cell-free therapeutic agents that may overcome some of the limitations of whole-cell approaches, while retaining much of the therapeutic signaling capacity of the parent MSCs [13].

3.6 Oxidative Stress Reduction: Protecting Against a Key Driver of Neurodegeneration

Oxidative stress — an imbalance between damaging reactive oxygen species and the body's antioxidant defenses — is a recognized contributor to neurodegeneration in MS. Chronically demyelinated axons are particularly vulnerable to oxidative injury. MSC secretome and exosomes have been shown to support cellular antioxidant responses, reduce reactive oxygen species, and protect neurons and oligodendrocytes from oxidative damage in preclinical models [12, 13]. While human evidence for this specific mechanism

in MS remains limited, it represents a plausible complementary pathway through which hUC-MSCs may contribute to neuroprotection.

4. Clinical Evidence and Research Findings

The Current State of the Evidence

Research into MSC therapy for MS has progressed from preclinical studies in animal models to a growing body of early-phase human clinical trials. While the evidence base is still maturing, and larger randomized controlled trials are needed to establish efficacy definitively, the published human data provide meaningful early signals regarding feasibility, tolerability, and potential clinical benefit.

The following is a fair summary of what the research currently shows.

Human Clinical Studies

Riordan et al. (2018) — Umbilical Cord MSCs, 20 Patients, 1-Year Follow-Up

One of the most detailed early feasibility studies of umbilical cord tissue-derived MSCs in MS enrolled 20 patients and administered repeated intravenous infusions over one year. At 12 months, investigators reported statistically significant improvements in Expanded Disability Status Scale (EDSS) scores, bladder and bowel function, sexual function, hand dexterity, and walking speed. MRI imaging showed lesion inactivity in 15 of 18 patients evaluated at one year. The study also documented significant changes in immune markers, including reductions in inflammatory gene expression. The authors concluded that the approach was feasible and warranted further controlled investigation [11].

Lu et al. (2013) — hUC-MSCs in Secondary Progressive MS

In a small series of eight patients with SPMS, intrathecal and intravenous hUC-MSC administration was associated with decreased relapse frequency, reductions in MRI lesion volume, and flow cytometric evidence of reduced T and B cell activity in peripheral blood. While the small sample size limits conclusions, the findings were consistent with a biological immunomodulatory response [16].

Jamali et al. (2024) — Phase I/II Dose-Finding Study, Intrathecal hUC-MSCs

A Phase I/II dose-finding clinical study of intrathecal hUC-MSC administration in MS patients evaluated both single-dose and repeat-dose protocols. Both were tolerated, and the study reported significant improvements in general disability scales, favorable changes in MRI lesion load and cortical thickness, and improvements in manual dexterity at follow-

up. Immunological analyses confirmed upregulation of regulatory T cells and changes in inflammatory gene expression consistent with an immunomodulatory effect [14].

Petrou et al. (2021) — Repeated MSC Injections in Progressive MS, 24 Patients

In a prospective open-label study, 24 patients with active progressive MS received repeated MSC injections. Over a median follow-up of approximately 28 months, 22 of 24 patients were stable or showed improvement. Mean EDSS scores decreased from 6.75 to 6.42. Patients who received more than two injections showed greater clinical benefit. The study also documented transient immunological changes consistent with immunomodulation. No serious treatment-related adverse events were observed [15].

Petriv et al. (2022) — Combined Intrathecal and IV UC-MSCs for Spasticity and Neurological Deficits

Two reports from this group described reductions in spasticity and neurological deficits up to one year following combined intrathecal and intravenous UC-MSC administration in small MS cohorts, adding to the evidence that this approach may offer functional benefits beyond EDSS alone [17, 18].

What the Evidence Means — and What It Does Not Mean

It is important to interpret these findings honestly:

- **Study sizes are small.** Most published trials include fewer than 30 patients. Small studies can produce encouraging results that do not replicate in larger, controlled trials.
- **Most studies are open-label.** Without a placebo control group, it is difficult to separate treatment effects from natural disease fluctuation, the placebo response, or regression to the mean.
- **Follow-up periods are limited.** Most studies report outcomes at 6 to 24 months. The long-term durability of any benefit — and the long-term safety profile — require further investigation.
- **Patient populations vary.** Studies have enrolled patients with different MS subtypes, disease durations, and disability levels, making direct comparisons difficult.
- **The evidence is promising but preliminary.** These studies support the biological plausibility of MSC therapy in MS and justify continued investigation, but they do not constitute proof of efficacy sufficient to establish MSC therapy as a standard treatment.

Auragens is committed to transparent communication of both what the research shows and what remains uncertain.

Ongoing Research

The field of MSC therapy in MS continues to advance. Multiple clinical trials are currently underway or recently completed, investigating optimal cell sources, doses, administration routes, and patient populations. Biomarker research — including neurofilament light chain (NfL) as a measure of neurodegeneration — is increasingly being incorporated into trial designs to provide objective measures of biological response alongside clinical outcomes.

5. Safety Profile: What the Research Shows

Overall Safety Signals in Published Studies

The available evidence from early-phase clinical trials and feasibility studies of MSC therapy in MS patients — including umbilical cord-derived MSCs — has generally reported a favorable short-term safety profile. Across the studies reviewed:

- **No serious treatment-related adverse events** were reported in several of the larger published series, including the Riordan et al. (2018) 20-patient study and the Petrou et al. (2021) 24-patient progressive MS study with up to 4 years of follow-up [11, 15].
- **Common mild and transient adverse effects** reported across studies have included headache, low-grade fever, fatigue, and injection-site or infusion-related reactions. These events were generally self-limiting and resolved without intervention.
- **Intrathecal administration** (injection into the spinal fluid space) has been associated in some reports with transient headache or back discomfort — effects consistent with the procedure itself rather than specific to the cell product.
- **No cases of tumor formation, ectopic tissue growth, or malignant transformation** attributable to hUC-MSC therapy have been reported in the published MS clinical literature reviewed.

What "Generally Well Tolerated" Means in Context

It is important to contextualize these safety findings appropriately:

- **Study sizes are small.** Rare adverse events may not be detectable in trials enrolling 10–30 patients. A safety event occurring in 1 in 500 patients, for example, would be unlikely to appear in any of the published MS MSC studies.
- **Follow-up is limited.** Most studies report safety data at 12–24 months. Long-term safety — particularly beyond 5 years — has not been systematically characterized for hUC-MSC therapy in MS.

- **The field is still evolving.** As MSC therapy advances toward larger, controlled trials, the safety database will expand and provide more definitive characterization of the risk profile.

Theoretical Safety Considerations

As with any biological therapy, certain theoretical risks are acknowledged in the scientific literature:

- **Immune reactions:** Although hUC-MSCs have low immunogenicity, allergic or immune-mediated reactions to infused cells or excipients remain a theoretical possibility and are monitored for during and after administration.
- **Infection risk:** Any intravenous or intrathecal procedure carries a small procedural infection risk. Auragens follows strict sterile technique protocols to minimize this risk.
- **Product variability:** The quality and potency of MSC preparations can vary between manufacturers. Auragens' AABB accreditation and rigorous quality control processes are specifically designed to minimize product variability.

Auragens' Approach to Safety

At Auragens, patient safety is the foundation of everything we do. Before, during, and after treatment, our medical team monitors patients carefully, documents all observations, and maintains a transparent record of outcomes. We do not administer therapy to patients for whom the risk-benefit assessment is unfavorable, and we always discuss safety considerations honestly during the consultation process.

6. What to Expect Next at Auragens

A Personalized, Evidence-Based Consultation Process

If you are considering exploring UC-MSC therapy for Multiple Sclerosis, your journey at Auragens begins with a comprehensive, individualized consultation — not a sales conversation. Our goal at this stage is to understand you as a person and as a patient, and to provide you with the honest, evidence-based information you need to make an informed decision.

What the Consultation Involves

Comprehensive medical history review. Our medical team will carefully review your MS history, including your diagnosis date, disease subtype, current and prior medications, neurological assessments (including EDSS scores), MRI history, and any other relevant medical information you can provide.

Goals and expectations discussion. We will take time to understand what matters most to you — whether that is stabilizing progression, improving a specific symptom, reducing relapse frequency, or simply exploring your options. We will discuss what the research suggests is realistic and what remains uncertain.

Individualized treatment review. Not every patient is the same, and not every patient is an appropriate candidate for UC-MSC therapy. Our team will assess whether this approach may be appropriate for your specific situation and, if so, what protocol — including cell dose, administration route, and treatment schedule — may be most suitable.

Transparent logistics discussion. We will walk you through the practical aspects of treatment: what the procedure involves, what the schedule looks like, what monitoring is included, and what follow-up care is provided.

Realistic expectations. We will be honest with you about what the current evidence supports and what it does not. We do not promise specific outcomes. We do promise rigorous, compassionate, evidence-based care.

Your Neurologist Remains Your Partner

We strongly encourage all patients to share information about their consultation and any treatment decision with their treating neurologist or MS specialist. MSC therapy is investigational and should be considered as a complementary exploration — not a replacement for your established MS care. Your neurologist knows your disease history and is an essential partner in any treatment decision.

7. Next Steps

Is This the Right Time to Explore a Consultation?

There is no single right answer to this question. The decision to explore UC-MSC therapy is personal and depends on many factors, including your disease course, your current treatment situation, your goals, and your values.

You may want to consider scheduling a consultation with Auragens if:

- You have been diagnosed with any form of MS and are seeking additional information about investigational regenerative approaches
- You have relapsing MS that remains active despite current disease-modifying therapy
- You have progressive MS and feel that your current treatment options are insufficient

- You are interested in a therapy that may address both the inflammatory and neurodegenerative dimensions of MS
- You want to make an informed, evidence-based decision about whether this approach is appropriate for your situation

Questions to Consider Before Your Consultation

Thinking through the following questions may help you prepare for a productive conversation with our team:

6. What are my primary goals — stabilization, symptom improvement, slowing progression, or something else?
7. What does my current neurologist think about my disease trajectory and current treatment plan?
8. Am I comfortable with the investigational nature of this therapy and the current state of the evidence?
9. What questions do I have about safety, logistics, cost, and follow-up?
10. Who else in my life — family, caregivers, physicians — should be part of this decision?

How to Reach Auragens

To schedule a consultation or request additional information, please visit **auragens.com** or contact our patient care team directly. We are available to answer your questions and guide you through the process with care and transparency.

A Message of Hope

Living with Multiple Sclerosis means navigating uncertainty — uncertainty about what tomorrow will bring, about how the disease will progress, and about whether the treatments available today will be enough. That uncertainty is real, and we do not minimize it.

But science is moving forward. The understanding of MS has advanced enormously over the past two decades. Researchers now understand far more about why myelin is lost, why some people progress and others do not, and what biological mechanisms might be targeted to protect neurons, support repair, and rebalance the immune system. Mesenchymal stem cell therapy is one of the investigational approaches emerging from this deeper understanding — not as a miracle, but as a biologically grounded, carefully studied, and honestly evaluated possibility.

The patients who have participated in early clinical studies of MSC therapy for MS have contributed something important: real-world data about safety, feasibility, and potential benefit that will guide the development of better treatments for everyone who comes after them. Their courage and openness to the unknown are part of how science advances.

At Auragens, we hold two things in tension: honesty and hope. We will always tell you what the evidence shows — including its limitations. And we will always believe that informed, compassionate, rigorous medicine can make a meaningful difference in the lives of people living with MS.

You deserve both the truth and the possibility. We are here to offer both.

The Auragens Patient Care Team

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