Understanding Stem Cell Therapy for Chronic Kidney Disease

A Patient Guide from Auragens

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

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Welcome

Receiving a diagnosis of chronic kidney disease — or watching it progress over time — can feel overwhelming. You may find yourself navigating a complex medical landscape, managing multiple medications, monitoring lab values, and wondering whether anything beyond slowing the inevitable is truly possible. You are not alone in asking those questions.

This guide was created to help you and your family understand what regenerative medicine — specifically therapy using human umbilical cord–derived mesenchymal stem cells (hUC-MSCs) from Wharton's Jelly — may offer as an investigational approach in the context of chronic kidney disease. It is not a promise of outcomes. It is an honest, evidence-based conversation starter, written in plain language, designed to prepare you for a meaningful consultation with the Auragens medical team and your own nephrologist.

Inside, you will find a clear explanation of what CKD is and why current treatments have real limitations, what hUC-MSCs are and how they work, what the scientific research shows — including its strengths and its gaps — and what you can expect if you choose to explore a consultation with Auragens.

Science is advancing. Patients deserve to understand it.

1. Understanding Chronic Kidney Disease and Current Limitations

What Is Chronic Kidney Disease?

Chronic kidney disease (CKD) is a progressive condition in which the kidneys gradually lose their ability to filter waste products, balance fluids and electrolytes, regulate blood pressure, and produce hormones essential to red blood cell production and bone health. CKD affects an estimated 10–15% of adults worldwide and is a leading cause of morbidity, cardiovascular disease, and premature death globally [1, 2].

The kidneys are two bean-shaped organs located in the back of the abdomen. Each kidney contains approximately one million tiny filtering units called nephrons. In CKD, nephrons are damaged and destroyed over time — and the human body has a limited ability to regenerate them. As nephron loss accumulates, the kidneys' filtering capacity, measured by the estimated glomerular filtration rate (eGFR), declines.

CKD is classified into five stages based on eGFR:

- **Stage 1–2:** Mildly reduced kidney function, often without symptoms
- **Stage 3:** Moderate reduction; fatigue, fluid retention, and early complications may appear

- **Stage 4:** Severely reduced function; preparation for renal replacement therapy begins
- **Stage 5 (End-Stage Renal Disease / ESRD):** Kidney failure requiring dialysis or transplantation

What Causes CKD?

The most common causes of CKD are type 2 diabetes (leading to diabetic kidney disease or diabetic nephropathy) and uncontrolled hypertension. Other causes include glomerulonephritis, polycystic kidney disease, lupus nephritis, recurrent urinary tract infections, and prolonged use of certain medications.

Regardless of the initial cause, CKD progression is driven by a shared set of destructive processes at the cellular level:

- **Chronic inflammation:** Persistent activation of immune cells within the kidney damages tubular cells and the delicate structures that filter blood.
- **Oxidative stress:** An excess of reactive oxygen species (free radicals) injures kidney cells and accelerates scarring.
- **Renal fibrosis:** Transforming growth factor-beta (TGF-β), a key signaling molecule, drives the conversion of healthy kidney tissue into non-functional scar tissue — a process called fibrosis. Once established, fibrosis is largely irreversible with current treatments [1, 2].
- **Tubular cell injury and loss:** The cells lining the kidney tubules, which perform critical reabsorption and secretion functions, are progressively lost.
- **Capillary rarefaction:** The tiny blood vessels that supply the kidney become fewer and less functional, reducing the organ's capacity to sustain itself.

Major Symptoms and Burdens

CKD is often called a "silent disease" in its early stages because symptoms may be absent or vague. As the disease progresses, patients may experience:

- Fatigue and reduced energy
- Swelling in the legs, ankles, or feet (edema)
- Shortness of breath
- High blood pressure that is difficult to control
- Reduced urine output or changes in urination
- Nausea, loss of appetite, and weight loss
- Difficulty concentrating ("brain fog")
- Anemia (low red blood cell count)
- Bone and mineral disorders
- Itching (pruritus)

The physical and emotional burden of CKD — particularly in advanced stages — profoundly affects quality of life, work capacity, and family life.

Current Standard Treatments and Their Limitations

The current standard of care for CKD focuses primarily on slowing progression and managing complications:

- **Blood pressure control** using ACE inhibitors or ARBs, which also reduce protein in the urine (proteinuria)
- **Blood sugar management** in diabetic kidney disease
- **SGLT-2 inhibitors** (such as dapagliflozin, empagliflozin), which have shown meaningful renoprotective effects in recent trials
- **Dietary modifications** including reduced sodium and protein intake
- **Anemia management** with erythropoiesis-stimulating agents
- **Dialysis** (hemodialysis or peritoneal dialysis) for end-stage disease
- **Kidney transplantation**, which remains the best long-term option for eligible patients with ESRD

These treatments represent genuine advances. However, their limitations are significant:

- **They slow decline but do not reverse it.** No currently approved therapy reliably restores lost nephrons, reverses established fibrosis, or meaningfully improves eGFR in most patients [1, 2].
- **Dialysis is burdensome and imperfect.** It replaces only a fraction of normal kidney function and is associated with high cardiovascular mortality and reduced quality of life.
- **Transplantation is limited by organ availability** and requires lifelong immunosuppression with its own risks.
- **Residual disease activity persists** even in well-managed patients, and many continue to progress despite optimal standard care.

These unmet needs have motivated researchers to explore regenerative and cellular therapies — approaches that aim not just to protect what remains, but to support repair and reduce the biological processes driving ongoing damage.

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

Understanding Mesenchymal Stem Cells

Mesenchymal stem cells (MSCs) are a specialized class of adult stem cells found in many tissues throughout the body, including bone marrow, adipose (fat) tissue, the placenta, and the umbilical cord. They are not embryonic stem cells. MSCs do not divide uncontrollably,

and they have not been associated with tumor formation in peer-reviewed safety studies conducted to date.

What makes MSCs scientifically compelling is not primarily their ability to transform into other cell types — though they can differentiate into bone, cartilage, and fat cells under the right conditions. Their most important therapeutic properties are **paracrine**: they communicate with surrounding cells by releasing a rich array of signaling molecules, growth factors, cytokines, and extracellular vesicles (including exosomes) that can modulate immune responses, reduce inflammation, support tissue repair, and protect cells under stress.

In short, MSCs act less like replacement parts and more like sophisticated biological regulators — sending signals that help the body's own healing mechanisms work more effectively.

What Is Wharton's Jelly?

Wharton's Jelly is the gelatinous connective tissue that surrounds and protects the blood vessels of the human umbilical cord. It is a rich and readily accessible source of mesenchymal stem cells — referred to as human umbilical cord MSCs (hUC-MSCs) or Wharton's Jelly MSCs (WJ-MSCs).

These cells are collected from donated umbilical cords following healthy, full-term births, with the full informed consent of the mother. The collection process is entirely non-invasive to both mother and newborn — the cord is simply donated after it would otherwise be discarded.

Why Umbilical Cord–Derived MSCs?

hUC-MSCs from Wharton's Jelly offer several properties that make them particularly well-suited for therapeutic investigation:

- **Low immunogenicity:** hUC-MSCs express low levels of the surface markers (particularly MHC class II antigens) that typically trigger immune rejection. This means they can be administered to patients who are not genetic matches — a property known as "allogeneic" use — without requiring immune suppression in most protocols studied to date.
- **Youthful biological profile:** Umbilical cord–derived cells are collected from a very early stage of life and retain a more primitive, biologically active profile compared with MSCs harvested from adult tissues. They tend to have higher proliferative capacity and more robust secretory activity.
- **Rich trophic and signaling activity:** hUC-MSCs secrete an array of growth factors — including hepatocyte growth factor (HGF), vascular endothelial growth factor

(VEGF), epidermal growth factor (EGF), fibroblast growth factor (FGF), and others — that support tissue repair, reduce cell death (apoptosis), and promote vascular health [3].

- **Immunomodulatory properties:** hUC-MSCs can shift the balance of immune activity — reducing the pro-inflammatory signals that drive tissue damage and supporting regulatory immune responses that promote tolerance and healing [4].
- **Extracellular vesicle production:** hUC-MSCs produce exosomes and other extracellular vesicles that carry bioactive cargo — including microRNAs, proteins, and lipids — capable of influencing gene expression and cell behavior in distant target tissues [5, 6].
- **Ethical and practical advantages:** Because collection requires no harm to the donor and uses tissue that would otherwise be discarded, hUC-MSCs avoid the ethical complexities associated with embryonic stem cells.

From Donor to Treatment: Quality and Safety

At Auragens, every step from donor screening to final preparation is conducted under rigorous quality standards:

- **Donor screening:** All umbilical cord donors undergo comprehensive health screening, including infectious disease testing, in accordance with applicable regulatory standards.
- **Laboratory expansion:** Cells are cultured and expanded under tightly controlled laboratory conditions using Good Manufacturing Practice (GMP)–compatible processes.
- **Quality control:** Cell identity, viability, sterility, and potency are verified at multiple checkpoints before any preparation is approved for clinical use.

Cryopreservation: Cells are cryopreserved (frozen) using validated protocols that preserve viability and biological activity, and are prepared fresh for each patient's treatment.

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 Biotechnologies) 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 Chronic Kidney Disease

CKD is not a single-mechanism disease. It is driven by a convergence of inflammation, immune dysregulation, oxidative injury, and progressive scarring — all of which damage the kidney's filtering architecture over time. This complexity is precisely why hUC-MSCs are being investigated: their multi-modal signaling profile may allow them to address several of these damaging processes simultaneously.

The following subsections describe the mechanisms that are most supported by the available scientific literature in the context of CKD. These are not established treatments —

they represent biological pathways that preclinical and early clinical research suggests may be relevant. More research is needed to confirm their clinical significance in humans.

3.1 Anti-Inflammatory Effects

Inflammation is a central driver of CKD progression. In the damaged kidney, immune cells infiltrate the tissue and release pro-inflammatory cytokines — including interleukin-6 (IL-6), interleukin-1β (IL-1β), and tumor necrosis factor-alpha (TNF-α) — that injure tubular cells and perpetuate the cycle of damage.

hUC-MSCs have demonstrated the ability to reduce these inflammatory signals. In preclinical studies of diabetic kidney disease, intravenous administration of umbilical cord MSCs was associated with significantly lower levels of renal and systemic pro-inflammatory cytokines, reduced immune cell infiltration in kidney tissue, and decreased proteinuria [3]. A clinical study of cord blood MSC–derived extracellular vesicles in CKD patients also reported decreases in TNF-α and increases in the anti-inflammatory cytokine IL-10 in the treated group [6].

3.2 Immunomodulation

Beyond simply reducing inflammation, hUC-MSCs appear to actively rebalance immune system activity. They can suppress the activity of pro-inflammatory immune cells while supporting the expansion of regulatory T cells (Tregs) — a specialized immune population that helps maintain immune tolerance and prevent excessive tissue damage.

In the NEPHSTROM randomized clinical trial — the most rigorously designed human study to date in this area — patients with diabetic kidney disease who received allogeneic mesenchymal stromal cell infusions showed preservation of circulating regulatory T cells and modulation of natural killer T cells and inflammatory monocyte subsets, consistent with an immunomodulatory effect in humans [4].

3.3 Antifibrotic Signaling

Renal fibrosis — the replacement of functional kidney tissue with scar tissue — is the final common pathway of CKD progression and one of the most difficult challenges in nephrology. TGF-β1 is the master regulator of this fibrotic process, driving the activation of fibroblasts and the deposition of collagen.

hUC-MSC conditioned medium and hUC-MSC–derived exosomes have been shown in animal models to reduce TGF-β1 levels, suppress the expression of fibrosis markers including alpha-smooth muscle actin (α-SMA) and Collagen-I, and limit the process by which kidney tubular cells transform into fibroblast-like cells (epithelial-to-mesenchymal transition, or EMT) [5, 7]. Wharton's Jelly MSCs specifically have been shown to reduce

renal fibrosis and modulate TNF-α and E-cadherin expression in obstructive kidney injury models [7].

These findings suggest that hUC-MSCs may have the potential to slow or interrupt the fibrotic cascade — though this has not yet been conclusively demonstrated in large human clinical trials.

3.4 Oxidative Stress Reduction

Oxidative stress — an imbalance between the production of damaging free radicals (reactive oxygen species, ROS) and the body's antioxidant defenses — plays an important role in kidney cell injury and death in CKD.

Preclinical studies have shown that hUC-MSC conditioned medium and exosomes can reduce ROS and malondialdehyde (MDA, a marker of oxidative damage) while increasing glutathione (GSH, a key antioxidant) in models of kidney injury [5]. By reducing oxidative burden, hUC-MSCs may help protect tubular cells from the ongoing injury that drives progressive nephron loss.

3.5 Paracrine and Exosome Signaling

Much of what hUC-MSCs do, they do without directly becoming kidney cells. Instead, they release a complex mixture of secreted factors and extracellular vesicles — including exosomes — that carry bioactive cargo such as microRNAs, proteins, and lipids to target cells throughout the body.

These exosomes can influence gene expression and cell behavior in kidney cells, suppressing inflammation and apoptosis, reducing fibrosis signaling, and promoting tubular cell proliferation and vascular repair [5, 6]. The cell-free nature of exosome therapy is itself an active area of investigation, with one clinical study demonstrating that umbilical cord MSC–derived extracellular vesicles administered to CKD patients were associated with improvements in eGFR, serum creatinine, blood urea, and urinary albumin-to-creatinine ratio (UACR) compared with placebo [6].

3.6 Trophic Factor Support and Vascular Protection

The kidneys are highly vascular organs, and the progressive loss of peritubular capillaries (capillary rarefaction) contributes significantly to CKD progression. hUC-MSCs secrete growth factors — including VEGF, HGF, EGF, and FGF — that can support angiogenesis (the formation of new blood vessels), promote tubular cell survival, and help maintain the microenvironment that kidney cells need to function [3].

This trophic support function may be particularly relevant in CKD, where both structural and vascular integrity are progressively compromised.

4. Clinical Evidence and Research Findings

The State of the Evidence

It is important to be transparent with you: the clinical evidence for hUC-MSC therapy in chronic kidney disease is early-stage. The most robust data come from small pilot studies, safety cohorts, one small randomized controlled trial, a clinical study of cell-free extracellular vesicles, and a small number of published case reports. Larger, well-powered, randomized controlled trials with long-term follow-up are needed before any definitive conclusions about efficacy can be drawn.

That said, the early evidence is scientifically meaningful and provides a credible foundation for ongoing investigation. Here is what the research currently shows:

The NEPHSTROM Trial: A Landmark Randomized Study

The most rigorously designed human study to date in this field is the NEPHSTROM trial, published in the *Journal of the American Society of Nephrology* in 2023 [4]. This randomized clinical trial enrolled patients with diabetic kidney disease (diabetic nephropathy, a major cause of CKD) and assigned them to receive either a single intravenous infusion of allogeneic bone marrow–derived mesenchymal stromal cells (ORBCEL-M; 80 million cells) or placebo.

Key findings from the lowest-dose cohort (12 treated patients, 4 placebo):

- **Safety:** The infusion was well tolerated. There were no infusion-related serious adverse events attributed to the cell therapy. Two deaths occurred during follow-up and were judged by investigators to be unrelated to treatment. One treated patient developed low-level anti-HLA antibodies, which were not associated with adverse clinical events.
- **eGFR trajectory:** The treated group showed a significantly lower median annual rate of eGFR decline by estimated equations compared with placebo, though measured GFR did not differ significantly between groups — a finding that requires careful interpretation given the small sample size.
- **Immune profile:** Treated patients showed preservation of circulating regulatory T cells and modulation of inflammatory immune cell subsets, consistent with the immunomodulatory mechanism described above.

The authors concluded that the therapy appeared safe and provided preliminary signals of biological activity, while acknowledging that larger studies are needed.

Adipose-Derived MSC Pilot Study

A pilot study published in *Kidney Research and Clinical Practice* (2019) administered intravenous autologous adipose-derived mesenchymal stromal cells (1×10^6 cells/kg) to six patients with CKD [8]. The study reported:

- No infusion-related adverse effects in any patient
- A statistically significant reduction in 24-hour urinary protein excretion from a median of 0.75 g/day to 0.54 g/day at 12 months
- No statistically significant change in eGFR

While small and uncontrolled, this study demonstrated tolerability and a signal of possible anti-proteinuric benefit.

Bone Marrow MSC Safety Studies

Two safety-focused studies by Makhlough and colleagues evaluated intravenous bone marrow–derived MSC infusions in CKD patients with up to 18 months of follow-up [9, 10]. Both studies reported no cell-related adverse events, supporting the short-term tolerability of MSC infusion in this population. These studies were not designed to assess efficacy as a primary endpoint.

Umbilical Cord MSC–Derived Extracellular Vesicles

A clinical study by Nassar and colleagues (2024) investigated the administration of two doses of umbilical cord MSC–derived extracellular vesicles to 20 CKD patients (stages III–IV) compared with 20 placebo recipients [6]. The treated group showed:

- Significant improvements in eGFR
- Reductions in serum creatinine and blood urea
- Improvement in urinary albumin-to-creatinine ratio (UACR)
- Decreases in the pro-inflammatory cytokine TNF-α
- Increases in the anti-inflammatory cytokine IL-10
- Increases in TGF-β1 (which in this context may reflect regulatory rather than purely fibrotic activity)

The authors reported the intervention as safe in this cohort. This study is notable because it directly used umbilical cord MSC–derived products, closely related to the hUC-MSC approach investigated at Auragens. However, as a single study without long-term follow-up, its findings require confirmation in larger trials.

Wharton's Jelly MSC Case Reports

Published case reports have described individual patients treated with allogeneic Wharton's Jelly MSCs combined with exosomes (intravenously) or with combined intravenous and intrathecal hUC-MSC implantation, reporting clinical and laboratory improvement in kidney function parameters without adverse effects [11, 12]. While these cases are scientifically interesting, single-patient reports cannot establish efficacy or safety across a population, and their results should be interpreted with appropriate caution.

What the Evidence Tells Us — and What It Does Not

Taken together, the current evidence suggests:

- MSC therapies, including umbilical cord–derived preparations, appear **generally well tolerated** in CKD patients in the studies conducted to date.
- There are **preliminary signals of biological activity** — including modulation of inflammatory markers, possible reductions in proteinuria, and some eGFR stabilization signals — that are consistent with the proposed mechanisms.
- **The evidence base is not yet sufficient** to establish that hUC-MSC therapy reliably improves clinically meaningful kidney endpoints (such as sustained eGFR improvement, dialysis avoidance, or transplant-free survival) in broad CKD populations.
- **Response variability exists.** Not all patients in the studies reviewed showed the same degree of benefit, and the factors that predict who is most likely to respond are not yet well understood.

More research is needed — including larger, well-powered, randomized controlled trials with longer follow-up, standardized cell products, and validated outcome measures.

5. Safety Profile: What the Research Shows

Overall Tolerability

Based on the available human studies, intravenous administration of MSCs — including umbilical cord–derived preparations — has generally been well tolerated in CKD patients in the studies conducted to date. Most published studies and case reports have not reported serious adverse events attributed to the cell therapy itself [4, 6, 8, 9, 10].

Reported Safety Observations

- **No infusion-related serious adverse events** attributed to cell therapy were reported in the adipose MSC pilot study [8] or in the bone marrow MSC safety cohorts [9, 10].
- **In the NEPHSTROM trial**, one participant in the placebo group experienced bronchospasm during infusion. Two deaths occurred in the treated group during follow-up; both were independently adjudicated as unrelated to the study treatment. One treated participant developed low-level anti-HLA antibodies, which did not result in clinical adverse effects during the study period [4].
- **In the extracellular vesicle study**, the intervention was reported as safe in the 20 treated patients, with no serious adverse events described [6].
- **In case reports** of Wharton's Jelly MSC treatment, no adverse effects were described in the individual patients reported [11, 12].

Route-Specific Considerations

The studies reviewed primarily used intravenous (IV) infusion as the delivery route — the same route used in Auragens' standard protocol. IV infusion allows for systemic distribution and is associated with a well-characterized tolerability profile in MSC research

more broadly. As with any intravenous procedure, standard monitoring for infusion reactions is appropriate.

Important Caveats

- The studies reviewed to date are **small and short-term**. Long-term safety data — particularly over years — are limited.
- **Immunogenicity** (the potential for the immune system to react against allogeneic cells) is a theoretical concern with any allogeneic cellular therapy. The low immunogenicity profile of hUC-MSCs is a theoretical advantage, but long-term immunological monitoring remains important.
- **Standardization** across studies is limited. Cell sources, doses, and preparation methods vary, making it difficult to draw universal conclusions about safety across all MSC preparations.
- Individual patient factors — including immune status, comorbidities, and concurrent medications — may influence both safety and response.

The safety picture from early research is encouraging. However, Auragens encourages all patients to have a thorough discussion of individual risk factors with both their nephrologist and the Auragens medical team before making any treatment decision.

6. What to Expect Next at Auragens

Your Consultation: Where Everything Begins

Every patient's journey at Auragens begins with a comprehensive, individualized consultation. This is not a sales conversation — it is a medical evaluation designed to understand your specific situation and determine whether hUC-MSC therapy may be an appropriate option for you.

During your consultation, the Auragens medical team will:

- **Review your complete medical history**, including your CKD stage, underlying cause, comorbidities (diabetes, hypertension, autoimmune conditions), current medications, and recent laboratory results (eGFR, creatinine, proteinuria, inflammatory markers, and others as relevant).
- **Discuss your treatment goals** — whether that is stabilizing kidney function, reducing symptoms, improving quality of life, or exploring options before reaching end-stage disease.
- **Provide an honest assessment** of whether the current evidence supports pursuing hUC-MSC therapy in your particular case, including a candid discussion of what the research does and does not show.
- **Review the proposed treatment protocol**, including cell source, dose, administration route (typically intravenous infusion), number of sessions, and follow-up monitoring schedule.

- **Discuss logistics**, including travel to our Panama or US facilities, accommodation considerations, and the overall timeline of care.
- **Answer your questions** — all of them, at whatever level of detail you need.

Personalized Planning

No two patients with CKD are identical. Your eGFR trajectory, the degree of proteinuria, the presence of diabetes or autoimmune disease, your cardiovascular status, and your goals all inform how a treatment protocol is designed and what monitoring is appropriate. Auragens is committed to individualized care planning, not one-size-fits-all protocols.

Coordination with Your Existing Medical Team

Auragens strongly encourages all patients to maintain their relationship with their nephrologist and primary care provider throughout any engagement with our program. We are committed to transparency and, with your consent, will communicate with your existing medical team to ensure continuity of care and appropriate safety monitoring.

7. Next Steps

Who May Want to Explore a Consultation?

A consultation with Auragens may be worth considering if you:

- Have been diagnosed with CKD (any stage) and are seeking to understand all available options
- Are progressing despite optimal standard care and want to explore investigational approaches
- Have diabetic kidney disease and are interested in the emerging evidence base for MSC therapy
- Are not yet at dialysis and want to explore whether regenerative approaches might help preserve remaining kidney function
- Are committed to an informed, evidence-based approach and understand that outcomes are not guaranteed

A consultation is **not** a commitment to treatment. It is an opportunity to ask questions, review your individual situation, and make an informed decision.

Questions to Discuss with Your Nephrologist and the Auragens Team

Before and during your consultation, consider asking:

1. Given my current CKD stage and trajectory, am I a candidate for investigational cellular therapy?
2. Are there any aspects of my medical history — immune status, medications, comorbidities — that might affect safety or response?

3. What monitoring would be done before, during, and after treatment?
4. How would we know whether the treatment is having any effect?
5. What are the realistic best-case and worst-case scenarios for someone in my situation?
6. Are there any active clinical trials I should consider participating in?
7. How does this therapy interact with my current medications and treatments?
8. What are the costs, and what financial support options are available?

The Importance of Informed Decision-Making

Regenerative medicine is a field of genuine scientific promise — and genuine uncertainty. At Auragens, we believe that the most important thing we can offer you, alongside our clinical expertise, is complete transparency. We will never pressure you toward a decision. We will give you the information you need to decide for yourself, in partnership with your medical team

A Message of Hope

Living with chronic kidney disease requires courage — the courage to manage a condition that asks a great deal of you every day, and the courage to keep asking whether something more is possible.

The science of regenerative medicine is advancing. Researchers around the world are deepening our understanding of how cells communicate, how inflammation and fibrosis can be interrupted, and how the body's own repair signals can be supported and amplified. The early findings with hUC-MSC therapy in kidney disease — while still investigational and still incomplete — are scientifically credible and warrant continued serious investigation.

We do not promise miracles. We do not promise that this therapy will reverse your disease or restore your kidneys to the way they were. What we can promise is that Auragens will approach your care with the highest standards of scientific rigor, manufacturing quality, and human compassion — and that we will be honest with you at every step.

Hope, in medicine, is not a feeling. It is a commitment to keep searching, keep learning, and keep showing up for patients who deserve better options. That commitment is what drives everything we do at Auragens.

We look forward to meeting you.

The Auragens Patient Care Team

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