Monday Mid-day Meet & Eat Seminar – Remote

Center for Dermal Research Welcomes

Chris Paradise, Vice President of Research and Development at Rion, Inc.

"Clinical Application of Platelet-Derived Exosomes in Regenerative Medicine"

October 27, 2025

12:00pm EST

Chris Paradise Rion, Inc.

Abstract:

Exosomes are small extracellular vesicles released by cells and play a crucial role in intercellular communication by transporting proteins, nucleic acids, and lipids. Over the past decade, exosome-based technologies have rapidly advanced, with academic literature and clinical interest growing exponentially. Exosomes have emerged as key drivers of tissue regeneration, with platelet-derived exosomes offering an ideal phenotype for promoting healing due to their abundance, biocompatibility, and established safety profile. This talk will cover:

- The historical emergence of exosome therapeutics and key learnings from cell-based therapy development.
- An introduction to RION and clinical application of platelet-derived exosome product, PEP Biologic™.
- Mechanisms of action supporting tissue regeneration, such as mitogenesis, angiogenesis, immunomodulation, and cytoprotection.
- Key considerations for characterization of exosome-based therapeutics, including potency, surface markers, integrity, and cargo.
- RION clinical program updates, including ongoing trials in wound care, dermatology, and musculoskeletal indications.

Platelet-derived exosomes represent a transformative, acellular approach to regenerative medicine, offering safe, effective, and scalable therapies for complex diseases. The presentation will highlight the clinical translation of these technologies and their potential to democratize next-generation therapeutics.

Biography:

Chris Paradise serves as Vice President of Research and Development at Rion, Inc., a clinical-stage biotechnology company headquartered in Rochester, MN. Rion's flagship therapeutic, PEP Biologic, leverages the regenerative capacity of platelet-derived extracellular vesicles to provide cell-free regenerative therapies. He holds a PhD in Molecular Pharmacology and Regenerative Medicine from the Mayo Clinic in Rochester, MN. Before joining Rion, Chris' research efforts focused on engineering adult stem cells and evaluating their utility as a therapeutic strategy for tissue regeneration. His work in the Regenerative Medicine space and has been recognized by prominent international societies and has resulted in over forty peer-reviewed publications.

Chris has been involved in the translation of Rion's extracellular vesicle therapeutic from its origins within the academic laboratories of Atta Behfar, MD, PhD, and Andre Terzic, MD, PhD, at the Mayo clinic to a clinical-stage Drug Product under evaluation in late-stage human clinical trials. This work has involved product and process characterization, analytical development, preclinical evaluation, and buildout of a robust CMC section to support IND submissions. In addition to focused efforts on the development of PEP Drug Product, Rion's Research and Development group maintains active collaborations with academic institutions, including Mayo Clinic, dedicated to the advancement of novel regenerative technologies.

CONFERENCE LINK Available on our website:
https://sites.rutgers.edu/centerfordermalresearch/cdr-events/seminar-series/