Candidate: Elected Member Technologist (2023-2025)

Athena Russell, PhD, MT(AAB), CABP
Product Development Scientific Manager
University of Pennsylvania
United States

Summary of academic and professional background:

I hold a PhD in Genetics and Molecular Biology from Emory University, studied Biochemistry and Molecular Biology at Mayo Graduate School, and earned undergraduate degrees in Biology and Medical Laboratory Science from University of North Florida and Florida State College, respectively. My current professional role is Product Development Scientific Manager for the Center for Cellular Immunotherapies at the University of Pennsylvania. I am a licensed and certified clinical laboratory technologist and have been dedicated to the fields of cell therapy basic and translational research, transfusion medicine, HSCT, gene therapy, and regenerative medicine for over 15 years.

My career has afforded me a unique, broad range of perspectives within the cell and gene therapy space as it has evolved over the last two decades. I understand the varying experiences, vantage points, and issues impacting technologists and bench scientists who contribute to many aspects of both investigational CGT development and clinical cell processing, including research technologists, clinical laboratory technologists, product development scientists, and manufacturing technologists, because I have personally performed and/or managed scientists serving in each of these professional roles over the course of my career. It would be a great honor to serve as an elected representative for technologists from all professional backgrounds in our global scientific community.

Affiliated professional and commercial associations and any perceived or potential conflict of interests:

Current professional role:
Product Development Scientific Manager
Product Development Laboratory
Center for Cellular Immunotherapies
University of Pennsylvania

Current professional society roles:
ISCT
ESP Leadership Development Program Representative to the Stem Cell Engineering Committee (2021 – 2023)

American Association of Bioanalysts (AAB)
Representative to the AAB Southern Regional Board of Governors (2014 – present)

AAB provides certification, education, and public policy advocacy for clinical laboratory scientists.

No perceived or potential conflicts of interest to declare.

List of top notable contributions to the field (e.g. publications, patents, reports, products advanced to clinical trial or regulatory approval, asset development, mergers, acquisitions, etc.) from the last 10 years:

Notable contributions to the field include service on a remarkable team establishing the first academic cGMP cell manufacturing facility on Mayo Clinic's Florida campus; our product development work, IND-enabling studies, and manufacturing of allogeneic mesenchymal stem cell products have led to Phase I/Ib clinical trials for chronic lung allograft syndrome, hemorrhagic stroke, hospital acquired pressure injuries, and a variety of other disease indications since.

Notable publications include:

1. Russell AL, Prince C, Lundgren TS, Knight KA, Denning G, Zoine JT, Alexander JS, Spencer HT, Chandrakasan S & Doering CB. Non-genotoxic anti-CD117 immunotoxin conditioning facilitates hematopoietic stem cell transplantation gene therapy for hemophilia A using bioengineered factor VIII. Molecular Therapy: Methods and Clinical Development. 2021 May 5; 21: 710-727. doi: 10.1016/j.omtm.2021.04.016

2. Huang P, Russell AL, Lefavor R, Durand N, James E, Harvey L, Zhang C, Countryman S, Stodieck L & Zubair AC. Feasibility, potency and safety of growing human mesenchymal stem cells in space for clinical application. Nature Partner Journal (npj) Microgravity. 2020 June; 6: 16. doi: 10.1038/s41526-020-0106-z

3. Durand N, Russell AL & Zubair A. Effect of Comedications and Endotoxins on Mesenchymal Stem Cell Secretomes, Migratory and Immunomodulatory Capacity. Journal of Clinical Medicine. 2019 Apr; 8: 497. doi: 10.3390/jcm8040497

4. Kumar D, Prince C, Bennett C, Briones M, Lucas L, Russell AL, Patel K, Chonat S, Graciaa S, Edington H, White MH, Kobrynski L, Abdalgani M, Parikh S, Chandra S, Bleesing J, Marsh R, Park S, Waller E, Prahalad S & Chandrakasan S. T-follicular helper cell expansion and chronic T-cell activation are characteristic immune anomalies in Evans syndrome. Blood. 2022 Jan 20; 139(3): 369-383. doi: 10.1182/blood.2021012924

5. Russell AL, Lefavor R, Durand N, Glover L & Zubair A. Modifiers of mesenchymal stem cell quality and quantity. Transfusion. 2018 June; 58(6): 1434-40. Epub 2018 Mar 26. doi: 10.1111/trf.14597

6. Russell AL, Lefavor R & Zubair A. Characterization and cost-benefit analysis of automated bioreactor expanded mesenchymal stem cells for clinical applications. Transfusion. 2018 Oct; 58(10): 2374-82. Epub 2018 Sep 10. doi: 10.1111/trf.14805.

7. Russell AL, Malik S, Litzow M, Gastineau D, Roy V & Zubair A. Dual roles of CD8+ T cell in hematopoietic progenitor cell mobilization and engraftment. Transfusion. 2015 July; 55(7): 1758-65. Epub 2015 Mar 11. doi: 10.1111/trf.13073

Summary of involvement with ISCT in the past five years:

I have previously served as Elected Member Technologist on the ISCT Advisory Board and Board of Directors from 2015 – 2019. Other committee involvements have included the ISCT Career Achievement Award Subcommittee of the Advisory Board, Communications Strategy Committee, Laboratory Practices Committee, and ESP Leadership Development Representative to the Stem Cell Engineering Scientific Committee. I am a past recipient of an ISCT Technologist Award. I have participated as a speaker at the ISCT Annual Meeting in Singapore, the North America Regional Meeting in Memphis, and the Annual Meeting in Melbourne. In 2019, I was awarded an ISCT travel grant to attend the North America Regional Meeting in Madison, WI. I have been a participant of the ESP Mentoring Program since the program's inception in 2018.

Summary of strategic vision for the Global Society:

Our Society is constantly adapting with the demands of this rapidly evolving field. New and exciting directions are continually being forged in cell-based therapy research, clinical translation, and practice. We are tasked with keeping pace with these rapid developments, while strengthening our impact, and continuing to raise awareness of our organization as a global leader in cellular therapy expertise, education, workforce development, and public policy advocacy in the US and internationally.

We have the most diverse and comprehensive syndicate of experts and key opinion leaders from academia, industry, clinical practice, and regulatory bodies working together to drive CGT translation. I believe one thing that makes our Society exceptionally unique and inclusive is not only clear dedication to supporting and developing the next generation of CGT scientists, future stakeholders and leaders, but also abiding acknowledgement of the significant contributions from our boots-on-the-ground CGT workforce – the indispensable teams of technologists and bench scientists without whom advancements in our field would not be possible – and empowering us to have a voice in the direction and evolution of the Society. Technologists and scientists are in many ways the beating heart of the field. As Elected Member Technologist, I will continue to advocate for the technologists that allow our important mission to become reality, and support the continued development of training initiatives, recruitment efforts, professional development programs, and educational opportunities for the established and burgeoning CGT technical workforce. I believe these initiatives are absolutely vital components to the success of our mission – to drive clinical translation of cell and gene therapies worldwide.