## SCN 2022-2025 Round 1 Funding Results: Horizon Awards

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<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR</th>
<th>CO-INVESTIGATORS AND COLLABORATORS</th>
<th>PROJECT TITLE</th>
<th>SCN FUNDS ALLOCATED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Guy, Sauvageau, Université de Montréal</strong></td>
<td>Bernhard Gentner (San Raffaele Hospital), Bernhard Lehneretz (ExCellThera Inc.), Brad Nelson (BC Cancer), Etienne Gagnon (Université de Montréal), Gabriel Tremblay (Geneconomics Inc.), Jean-Sébastien Delisle (Hôpital Maisonneuve-Rosemont), Josée Hébert (Hôpital Maisonneuve-Rosemont), Keith Humphries (British Columbia Cancer Agency Branch), Ma'n Zawati (McGill University), Nika Shakiba (University of British Columbia), Peter Zandstra (University of British Columbia), Philippe Roux (Université de Montréal), Vincent-Philippe Lavallée (Centre Hospitalier Universitaire Sainte-Justine)</td>
<td>Engineered hematopoietic stem cells (eHSCs) as vehicles for next generation therapies</td>
<td>$3,000,000</td>
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<tr>
<td><strong>James, Shapiro, University of Alberta</strong></td>
<td>Andrew Pepper (University of Alberta), Anna Lam (University of Alberta), Blaire Anderson (University of Alberta), Gregory Korbutt (University of Alberta), Khaled Dajani (University of Alberta), Michael Kallos (The University of Calgary), Peter Senior (Alberta Diabetes Institute), Timothy Kieffer (University of British Columbia)</td>
<td>Autologous iPSC-Islets for Personalized Diabetes Therapy: a First-in-Human Implantation and Scale-up Manufacturing</td>
<td>$2,993,396</td>
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SCN 2022-2025 Round 1 Funding Results: Early Career Researcher Jump-Start Awards

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<tr>
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<tbody>
<tr>
<td>Anastasia Tikhonova, University Health Network</td>
<td>Courtney Jones (University Health Network), Dennis Kim (University Health Network), Gary Bader (University of Toronto)</td>
<td>Targeting the bone marrow microenvironment to promote hematopoietic regeneration</td>
<td>$300,000</td>
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<tr>
<td>Natasha Chang, McGill University</td>
<td>Benedicte Chazaud (Claude Bernard University Lyon 1), Nicolas Dumont (Centre Hospitalier Universitaire Sainte-Justine), Pura Munoz-Canoves (Pompeu Fabra University)</td>
<td>Targeting muscle stem cell dysfunction</td>
<td>$300,000</td>
</tr>
<tr>
<td>Nika Shakiba, University of British Columbia</td>
<td>Ivana Barbaric (University of Sheffield), Sidhartha Goyal (University of Toronto)</td>
<td>Elucidating the competitive advantage of aberrant pluripotent stem cells in suspension bioprocesses</td>
<td>$300,000</td>
</tr>
<tr>
<td>Julien Muffat, The Hospital for Sick Children</td>
<td>George Ibrahim (The Hospital for Sick Children), Yun Li (The Hospital for Sick Children)</td>
<td>Engineering microglia to support oligodendrocyte transplants, and improve remyelination after white matter injury</td>
<td>$300,000</td>
</tr>
<tr>
<td>Name</td>
<td>Institution</td>
<td>Collaborators</td>
<td>Project Title</td>
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<tr>
<td>Ly Vu</td>
<td>University of British Columbia</td>
<td>Connie Eaves (BC Cancer Research)</td>
<td>Modulating activity of RNA regulating proteins to preserve long-term regenerative potential of Hematopoietic Stem Cells</td>
</tr>
<tr>
<td>Daniel Coutu</td>
<td>Ottawa Hospital Research Institute</td>
<td>F. Jeffrey Dilworth (Ottawa Hospital Research Institute), George Grammatopoulos (Ottawa Hospital), Mark Campbell (Ottawa Hospital), Sasha Carsen (University of Ottawa)</td>
<td>Pharmacological rejuvenation of skeletal stem cells for use in regenerative orthopedic surgery</td>
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<tr>
<td>Carl de Boer</td>
<td>University of British Columbia</td>
<td>Patrick Kuery (Heinrich-Heine-University), Samer Hussein (Université Laval), Scott Yuzwa (University of Toronto), Shannon Dunn (St Michael’s Hospital)</td>
<td>Decoding human cis-regulatory logic in development to treat disease</td>
</tr>
<tr>
<td>Maryam Faiz</td>
<td>University of Toronto</td>
<td>Boyang Zhang (McMaster University), Matthew Vickaryous (University of Guelph)</td>
<td>Investigating neuron-dependent cues to promote tissue regeneration</td>
</tr>
<tr>
<td>Samantha Payne</td>
<td>University of Guelph</td>
<td>Boyang Zhang (McMaster University), Matthew Vickaryous (University of Guelph)</td>
<td>Investigating neuron-dependent cues to promote tissue regeneration</td>
</tr>
<tr>
<td>Mamatha Bhat</td>
<td>University Health Network</td>
<td>Gang Zheng (University of Toronto - University Health Network), Jeff Wrana (Sinai Health System (Mount Sinai Hospital))</td>
<td>A Nanoparticle-based Strategy to Therapeutically Restore Regenerative Capacity in Cirrhotic Livers</td>
</tr>
<tr>
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<tr>
<td><strong>Sheila Teves, University of British Columbia</strong></td>
<td>Glen Tibbits (Simon Fraser University)</td>
<td>Transcription regulation of hiPSC-derived cardiomyocytes during maturation and hypertrophic cardiomyopathy</td>
<td>$300,000</td>
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<tr>
<td><strong>Amy Wong, The Hospital for Sick Children</strong></td>
<td>Bo Wang (University of Toronto - University Health Network), Nika Shakiba (University of British Columbia)</td>
<td>Deciphering cell competition during iPSC differentiation towards lung epithelia</td>
<td>$300,000</td>
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<tr>
<td><strong>Gordon Keller, University Health Network</strong></td>
<td>Juan Carlos Zuniga-Pflucker (Sunnybrook Health Sciences Centre)</td>
<td>Novel human pluripotent stem cell-derived hematopoietic cell therapy</td>
<td>$249,820</td>
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<tr>
<td><strong>Martin Levesque, Université Laval</strong></td>
<td>Mattia Volta (Institute for Biomedicine, Eurac research), Samer Hussein (Université Laval)</td>
<td>Repairing the dopaminergic circuits in Parkinson disease using synucleinopathy resistant neurones grafting</td>
<td>$250,000</td>
</tr>
<tr>
<td><strong>Milica Radisic, University Health Network</strong></td>
<td>Gordana Vunjak-Novakovic (The Trustees of Columbia University in the City of New York), Gordon Keller (University of Toronto - University Health Network), Michael Laflamme (University Health Network), Slava Epelman (University Health Network)</td>
<td>Stem cell derived resident cardiac macrophages in designer polymers for cardiac repair and regeneration</td>
<td>$250,000</td>
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<tr>
<td><strong>Lucie Germain</strong>, Université Laval</td>
<td>Bartha Knoppers (The Research Institute of the McGill University Health Centre), Elena Pope (The Hospital for Sick Children), Guillaume St-Jean (Université de Montréal), Jason Guertin (Université Laval), Manuel Caruso (Université Laval), Véronique Moulin (Université Laval)</td>
<td>Combining tissue-engineered skin with ex vivo gene therapy correction to develop a treatment for epidermolysis bullosa</td>
<td>$250,000</td>
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<tr>
<td><strong>Bernard Thébaud</strong>, Ottawa Hospital Research Institute</td>
<td>Daphne Merkus (Erasmus University Medical Center), Dylan Burger (Ottawa Hospital Research Institute), John Bell (Ottawa Hospital Research Institute), Mervin Yoder (Indiana University, Indianapolis)</td>
<td>Ironman – Improved Respiratory Outcome of Newborns with Modified Angiogenic Nanovesicles</td>
<td>$249,976</td>
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<tr>
<td><strong>Lauren Flynn</strong>, The University of Western Ontario</td>
<td>Douglas Hamilton (The University of Western Ontario), Emily Truscott (The University of Western Ontario), John Ronald (The University of Western Ontario), Jonathan Thiessen (London Health Sciences Centre Research Inc.), Justin Hicks (London Health Sciences Centre Research Inc. (Lawson Health Research Institute)), Maria Drangova (The University of Western Ontario)</td>
<td>Delivery of adipose-derived stromal cells within novel cell-assembled bioscaffolds for the treatment of chronic wounds</td>
<td>$250,000</td>
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<td><strong>Molly Shoichet</strong>, University of Toronto</td>
<td>Andras Nagy (Lunenfeld-Tanenbaum Research Institute), Cindi Morshead (University of Toronto, Faculty of Medicine), Nir Lipsman (Sunnybrook Health Sciences Centre), Rick Swartz (Sunnybrook Health Sciences Centre)</td>
<td>Regenerating the Stroke Injured Brain by Modulating the Glial Scar and Enhancing Neuroplasticity</td>
<td>$250,000</td>
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<tr>
<td><strong>Pamela Hoodless</strong>, University of British Columbia</td>
<td>Francis Lynn (University of British Columbia), Gareth Sullivan (University of Oslo), Geoffrey Schiebinger (University of British Columbia),</td>
<td>Pathways of Cell Identity in Human Liver Organoids</td>
<td>$250,000</td>
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<tr>
<td>Véronique Moulin, Université Laval</td>
<td>Andree-Anne Roy (Centre Hospitalier Universitaire Sainte-Justine), Bartha Knoppers (The Research Institute of the McGill University Health Centre), Chanel Beaudoin-Cloutier (Université Laval), Claudia Malik (Children’s Hospital of Eastern Ontario), Duncan Nickerson (University of Alberta), Edward Tredget (University of Alberta), Francois Auger (CHU de Québec - Université Laval), Joel Fish (The Hospital for Sick Children), Josh Wong (University of Alberta), Lucie Germain (Université Laval), Marc Jeschke (Sunnybrook Health Sciences Centre), Patricia Bortolucci (Centre Hospitalier Universitaire Sainte-Justine), Peter Kwan (University of Alberta), Sally Hynes (British Columbia’s Children’s Hospital), Sarvesh Logsetty</td>
<td>Tissue engineering to treat Canadian burn patients: the Self-Assembled Skin Substitutes (SASS)</td>
<td>$581,700</td>
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<tr>
<td><strong>David Thompson, University of British Columbia</strong></td>
<td>Graydon Meneilly (University of British Columbia), James Lan (University of British Columbia), Megan Levings (University of British Columbia), Peter Kim (University of British Columbia), Tania Bubela (Simon Fraser University), Timothy Kieffer (University of British Columbia)</td>
<td>Clinical Trial of the First Gene-Edited Cell Replacement Therapy for Type 1 Diabetes</td>
<td>$1,000,000</td>
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<tr>
<td><strong>Lauralyn McIntyre, Ottawa Hospital Research Institute</strong></td>
<td>Alexis Turgeon (CHU de Québec - Université Laval), Alison Fox-Robichaud (Hamilton Health Sciences), Bernard Thébaud (Ottawa Hospital Research Institute), Brent Winston (The University of Calgary), Christine Caron (Sepsis Network), Claudia Dos Santos (St. Michael's Hospital), Dean Fergusson (Ottawa Hospital Research Institute), Duncan Stewart (Ottawa Health Research Institute), Geeta Mehta (Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital), Gregory Korbutt (University of Alberta), John Granton (Sinai Health System (Mount Sinai Hospital)), John Marshall (St. Michael's Hospital), Kednapa Thavorn (Ottawa Hospital Research Institute), Keith Walley (University of British Columbia), Margaret Herridge (University of Toronto - University Health Network), Mario Ruediger (Universitätsklinikum Carl Gustav Carus), Michael Chasse (Centre Hospitalier de l'Université de Montréal), Michael Matthay (University of California, San Francisco (Reagents UCSF Contracts and Grants)), Shane English (Ottawa</td>
<td>Umbilical Mesenchymal Stem Cells as Cellular Immunotherapy for Septic Shock (UC-CISS): A Phase II RCT</td>
<td>$999,850</td>
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<td>Vardit Ravitsky, Université de Montréal</td>
<td>Bartha Knoppers (The Research Institute of the McGill University Health Centre), Bryn Williams-Jones (Université de Montréal), Eli Adashi (Brown University), Glenn Cohen (Harvard Medical School), Jeremy Snyder (Simon Fraser University), Jonathan Kimmelman (McGill University), Ma’n Zawati (McGill University), Natalie Kofler (Yale University)</td>
<td>Responsible Pathways for Pediatric Cell Therapies</td>
<td>$300,000</td>
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<tr>
<td>Amy Zarzeczny, University of Regina</td>
<td>Aurelie Mahalatchimy (Aix-Marseille Université), Bege Dauda (Perelman School of Medicine, University of Pennsylvania), Cara Bradley (University of Regina), Dan Florizone (The University of Saskatchewan), Donrich Thaldar (University of KwaZulu-Natal, Durban), Jeremy Snyder (Simon Fraser University), Leigh Turner (The Regents of the University of California (Irvine)), Megan Munsie (The University of Melbourne), Mohamed Abou-el-Enein (University of Southern California (USC)), Patricia Zettler (The Ohio State Law, Public Policy and Social License for Next-Generation Regenerative Medicine</td>
<td>$704,985</td>
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<tr>
<td><strong>Manoj Lalu, Ottawa Hospital Research Institute</strong></td>
<td>Engaging patients in laboratory-based cell therapy research: Co-production and field testing of a framework</td>
<td>$300,000</td>
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<td>University), Paul Knoepfler (The Regents of the University of California (University of California Davis)), Peter Phillips (The University of Saskatchewan), Rosario Isasi (University of Miami Miller School of Medicine), Sowmya Viswanathan (University of Toronto - University Health Network), Timothy Caulfield (University of Alberta), Ubaka Ogbogu (University of Alberta), Yang Yang (The University of Saskatchewan), Zubin Master (Mayo Clinic)</td>
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## SCN 2022-2025 Round 1 Funding Results: Fueling Biotechnology Partnerships

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<th>Co-investigators and Collaborators</th>
<th>Project Title</th>
<th>SCN Funds Allocated</th>
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| **Shinichiro Ogawa**, University Health Network | Biotech Partner: Aspect Biosystems  
Gordon Keller (University of Toronto - University Health Network), Ian McGilvray (University of Toronto - University Health Network), Rafał Witek (Aspect Biosystems), Sam Wadsworth (Aspect Biosystems), Sonya MacParland (University Health Network) | Developing functional 3D bioprinted liver tissues with sustained immune evasion | $400,000 |
| **Michael Underhill**, University of British Columbia | Biotech Partner: Mesintel Therapeutics Inc.  
Pamela Hoodless (BC Cancer Research) | Novel therapeutic strategies to promote liver regeneration | $399,200 |