# JUAN C. SANCHEZ ARIAS, MD, PhD

Leader | Physician | Neuroscientist | Techie

Phone: 250-885-9486 | jucamilo.sanchez@gmail.com | Victoria, BC | linkedin.com/in/juancsanchezarias/ | juansanar.com

## PROFESSIONAL PROFILE

With over 10 years of combined clinical and biomedical professional experience, I am a data-driven professional and science communicator capable of translating complex concepts in medicine, science, and other technical disciplines across diverse teams and value streams, as well as scoping and decomposing projects into actionable and trackable tasks. I am an authentic and compassionate leader that fosters collaboration and communication across cross-functional and functional teams and who is able to elevate individual contributors and project outcomes using radical candor, data-sense making, and a diverse subject matter expertise in medicine, science, and emerging technologies.

## CORE COMPETENCIES

Data Analytics | Clinical and Biomedical Research | Systematic Literature Review and Synthesis | Scientific and Technical Copywriting | Agile and Waterfall Project Management | Product Management | People Management | Stakeholder Engagement

## TECHNICAL SKILLS

SQL | R | Python | Jira | MS Office Suite | Google Workspace | Google Cloud Computing Services | Prompt Engineering | RAG

## WORK EXPERIENCE

**TEAM LEAD - CUSTOMER THERAPEUTICS DATA** | BenchSci | Toronto, ON (Remote)          October 2023 – Present
- Lead and manage a  high performing team of PhD-level scientists to extract and derive valuable insights from customers' internal data captured in electronic lab notebooks (ELNs) and other intellectual property documents.
- Product Owner of BenchSci's Customer Internal Data E2E Processing Pipeline of contracted clients.
- Product Owner and subject matter expert in Generative AI applications to extract, summarize, and present insights from biomedical data contained in intellectual property documents.
- Support BenchSci's prioritization of commercial partnerships and engagements in collaboration with Technical Product Managers and leadership stakeholders in the company.
- Lead an analytics framework to characterize BenchSci biomedical corpus and knowledge graph coverage of indications from the top global pharmaceutical companies.

**SCIENCE TECH LEAD - CUSTOMER THERAPEUTICS - Neuroscience** | BenchSci | Toronto, ON (Remote)          July 2023 – October  2023
- Led and coordinated data and product investigations to improve BenchSci's platform coverage and impact on Neuroscience-related Therapeutic Areas.
- Acted as the steward of Neuroscience-related Therapeutic Areas within BenchSci.
- Worked in collaboration with Science, Engineering, Product, and Go-to-Market to translate user requirements into features within BenchSci's platform.
- Worked in collaboration with Product and Engineering teams to magnify the impact and applications of BenchSci's platform, including the implementation of summarization services using Large Language Models (LLMs).
- Supported Go-to-Market commercial and client engagements by providing subject matter expertise in biomedical research and data analytics.

**SCIENTIST II, CUSTOMER THERAPEUTICS** | BenchSci | Toronto, ON (Remote)          June 2022 – July 2023
- Acted as consultant and biomedical analyst by scoping and extracting scientific insights from intellectual property and external data using BenchSi's AI/ML Platform, providing disproportionate value to scientists working in drug development programs at the top global pharmaceutical companies.
- Worked in collaboration with Data Extraction Scientists to improve the data processing cycle within BenchSci's platform.
- Worked in collaboration with Product,  Engineering, and Go-to-Market teams to magnify the impact and applications of BenchSci's platform.
- Established an analytics framework to assess and evaluate the readiness of BenchSci's ASCEND platform to successfully complete commercial engagements and pilots with top pharmaceutical companies.

**POSTDOCTORAL FELLOW** | University of Victoria, Division of Medical Sciences | Victoria, BC          May 2020 – June 2022
- **Area of study:** Inherited arrhythmias, community genetics, bioinformatics, ion channel biology, calcium homeostasis in cardiomyocytes.
- **Roles:** Project and data management, research execution, presentation of results, and grant and research writing.
- **Techniques:** RNA seq and microarray gene expression analysis using R and bioconductor tools (DESeq2, oligo, limma). analysis of protein-protein interaction networks and pathway enrichment analysis using R and Cytoscape, immunohistochemistry and confocal microscopy of embryonic and adult mouse heart sections, live cell microscopy.

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## EDUCATION

**DOCTOR IN PHILOSOPHY (PHD)** | Neuroscience | University of Victoria | Victoria, BC               2015 – 2020
**DOCTOR OF MEDICINE (MD)** | Universidad del Valle, School of Medicine | Cali, Colombia               2007 – 2014

## PROFESSIONAL DEVELOPMENT

CERTIFIED SCRUM PRODUCT OWNER® - 1920762 | Scrum Alliance | Online               2024-2026

GOOGLE DATA ANALYTICS CERTIFICATE| Google | Online               Ongoing
CODE IN PLACE | Stanford University | Online               2021

## PROFESSIONAL AFFILIATIONS

MEMBER | Colegio Colombiano de Neurociencias (COLNE)               Jun 2020 - Ongoing
MEMBER | Canadian Cardiovascular Society (CSS)               May 2021 – Jul 2022
MEMBER | Canadian Association for Neuroscience (CAN)               Feb 2015 – Aug 2022
MEMBER | Society for Neuroscience (SFN)               Jun 2016 – Dec 2020
MEMBER | BC Regenerative Medicine Cluster (BCREGMED)               Dec 2017 – Dec 2019

## SELECTED AWARDS

RESEARCH TRAINEE AWARD (POSTDOCTORAL GRANT) | **Michael Smith Health Research BC**               2021 - 2022
NB GULILA STAR AWARD | **International Gap Junction Conference**               2019
JOHN & MYRTLE TILLEY GRADUATE SCHOLARSHIP | **University of Victoria**               2019
JAMES & LAURETTE AGNEW MEMORIAL SCHOLARSHIP | **University of Victoria**               2015 - 2019
DONALD WAGG GRADUATE SCHOLARSHIP | **University of Victoria**               2017 - 2018
GRADUATE AWARD | **University of Victoria**               2015 - 2017
FELLOWSHIP ENTRANCE AWARD | **University of Victoria**               2015
SCHOOL OF MEDICINE YEARLY DEAN's LIST | **Universidad del Valle, School of Medicine**               2007, 2009 2013, 2014

## SERVICE AND VOLUNTEERING

**ISLAND HEALTH CODE HACK** | Builder/Hacker | Third Place | Victoria, BC               Feb 2023
**LET'S TALK SCIENCE** | University of Victoria | Victoria, BC               Oct 2018 - Jun 2022
**CIHR BRAIN BEE** | Local Chapter Coordinator | Victoria, BC               May 2017 - Jun 2022
**UVIC NEUROSCIENCE GRADUATE STUDENT ASSOCIATION** | Student Representative               Sept 2017 - Aug 2018
**BC REGENERATIVE MEDICINE** | Newsletter Editor               Dec 2017 - Apr 2019

## SELECTED PUBLICATIONS *see my Google Scholar profile for more information

York, Nicole S; **Sanchez-Arias,** Juan C; McAdam, Alexa CH; Rivera, Joel E; Arbour, Laura T; Swayne, Leigh Anne. *Mechanisms underlying the role of ankyrin-B in cardiac and neurological health and disease.* Frontiers in Cardiovascular Medicine 9, 964675. **2022**. Frontiers Media SA.

Kallas, Dania; Bos, Johan Martijn; Peltenburg, Puck; Franciosi, Sonia; Mohajeri, Arezoo; Cheung, Matthew; Brett, Laura; York, Nicole; **Sanchez-Arias, Juan C**; Swayne, Leigh Anne. *PO-655-05 IS ANKYRIN-2 A POTENTIAL GENETIC MODIFIER IN PEDIATRIC CATECHOLAMINERGIC POLYMORPHIC VENTRICULAR TACHYCARDIA?.* Heart Rhythm 19,5,S264-S265. **2022**. Elsevier.

**Sanchez-Arias, Juan C**; Carrier, Micael; Frederiksen, Simona D; Shevtsova, Olga; McKee, Chloe; van der Slagt, Emma; Gonçalves de Andrade, Elisa; Nguyen, Hai Lam; Young, Penelope A; Tremblay, Marie-eve. *A systematic, open-science framework for quantification of cell-types in mouse brain sections using fluorescence microscopy.* Frontiers in Neuroanatomy. 15, 722443. **2021**. Frontiers Media SA.

**Sanchez-Arias, Juan C**; van der Slagt, Emma; Vecchiarelli, Haley A; Candlish, Rebecca C; York, Nicole; Young, Penelope A; Shevtsova, Olga; Juma, Afnan; Tremblay, Marie-Eve; Swayne, Leigh Anne. *Purinergic signaling in nervous system health and disease: Focus on pannexin 1.* Pharmacology & therapeutics 225, 107840. **2021**. Pergamon.

**Sanchez-Arias, Juan C**; Candlish, Rebecca C; van der Slagt, Emma; Swayne, Leigh Anne. *Pannexin 1 regulates dendritic protrusion dynamics in immature cortical neurons.* ENeuro,7,4,. **2020**. Society for Neuroscience.

Swayne, Leigh Anne; Johnstone, Scott R; Ng, Chen Seng; **Sanchez-Arias, Juan C**; Good, Miranda E; Penuela, Silvia; Lohman, Alexander W; Wolpe, Abigail G; Laubach, Victor E; Koval, Michael. *Consideration of Pannexin 1 channels in COVID-19 pathology and treatment.* American Journal of Physiology-Lung Cellular and Molecular Physiology 319,1,L121-L125. **2020**. American Physiological Society Bethesda, MD.

**Sanchez-Arias, Juan C;** Liu, Mei; Choi, Catherine SW; Ebert, Sarah N; Brown, Craig E; Swayne, Leigh Anne. *Pannexin 1 regulates network ensembles and dendritic spine development in cortical neurons*. Eneuro, 63. **2019**. Society for Neuroscience.