Best practices for collecting, documenting, and managing research data and records

**Workshop Date: January 7, 2023 - February 27, 2023**

**Workshop Summary:**

The translation of discoveries into new clinical therapies is a multi-step process that requires careful planning and rigor at all stages. Valid and secure research records are critical for demonstrating data quality and integrity throughout the research life cycle and for establishing the robust experimental evidence necessary for successful clinical or commercial translation.

Recent concerns in the reproducibility of published experimental observations are fueling the adoption of standardized best practices within the laboratory that improve the reliability of experimental observations by harmonizing the way research is conducted and recorded.

Accurate and traceable research records are the foundation of all research activities because they enable transparency, troubleshooting, and reproducibility, while also supporting the most defensible interpretation of experimental outputs. Reliable research records also support collaboration and data sharing while reducing experimental waste.

Stem Cell Network and BioCanRx are hosting a 4-session training workshop that will provide attendees with foundational knowledge in research data and record management best practices.

To acknowledge the effort and participation of participants, individuals who complete all the workshop sessions will be eligible for a certificate of completion at the end of the course.

**Learning Objectives:**

By the end of this workshop, participants will:

* Understand how effective research data and record management supports the responsible conduct of research and increases the ability to store, find and reuse research data. **[Session 1]**
* Understand how to adopt methodologies that reflect best practices in research data and record management. [**Session 2]**
* Have a working knowledge of good documentation practices and their implementation in the laboratory to support their need to demonstrate effective research data management and risk management strategies. **[Session 2]**
* Understand how data quality and data integrity are assured and demonstrated. **[Session 3]**
* Be introduced to the use of Research Quality Management Systems as an effective strategy for maintaining and monitoring data quality and integrity. **[Session 3]**
* Be aware of the available data and quality management resources that will further support deployment of these approaches in their own laboratory. [**Session 4]**
* Understand how effective research data management processes can be applied to meet the principles and expectations of granting agencies that promote and support research in Canada. **[Session 4]**

**Participant criteria:**

This workshop is targeted at Investigators and HQP (e.g. graduate students, post-docs, research associates and/or technicians) who are seeking to lay the foundation for successful clinical translation studies in their laboratories or institutions. **Note: Applications from two-to-three persons teams comprising an Investigator and 1-2 HQP from their lab will be given priority, although applications from individual Investigators or HQP are also welcomed. If applying as an individual, please leave respective team member sections blank.**

**Workshop Application Form**

All applications from Stem Cell Network labs should be directed to Ellie Arnold by emailing earnold@stemcellnetwork.ca by **11:59pm (sender’s time), November 28th, 2022**

All applications from BioCanRx labs should be directed to Sarah Ivanco by emailing sivanco@biocanrx.com by **11:59pm (sender’s time), November 28th, 2022**

**Section 1: Team Members**

In the table below, please list the principal investigator, plus **one to two (1-2)** team members, who will comprise the 2–3-member team. The second and third team member should be Highly Qualified Personnel (HQP) such as a graduate student, postdoctoral fellow or research support staff. For each person, provide their name, position, institutional affiliation and email address. All team members including the project leader (Investigator) **must** be present in person for the entirety of this workshop.

\*BioCanRx and the Stem Cell Network are advocates for equity and is committed to ensuring representation in their communities. We welcome applications from members of racialized communities, women, Indigenous peoples, persons with disabilities, and persons of minority sexual orientations and gender identities. BioCanRx and the Stem Cell Network seeks to maintain their commitment to excellence and recognizes that increasing the diversity of its networks supports this objective. These questions are not to tied award decisions; they are a tool that will allow BioCanRx and the Stem Cell Network to monitor the equity performance of its programs.

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| **PRINCIPAL INVESTIGATOR APPLICANT INFORMATION** |
| Surname:  | Given Names:  |
| Citizenship\*?: [ ]  Canadian (including permanent resident) [ ]  International |
| Gender\*?: [ ]  Woman [ ]  Man [ ]  Gender-fluid, non-binary and/or Two-Spirit [ ]  I prefer not to answer  |
| Do you identify as Indigenous, that is First Nation, Métis, or Inuk (Inuit)?\* [ ]  Yes [ ]  No [ ]  I prefer not to answer  |
| Do you identify as a person with a visible or invisible disability\*? : [ ]  Yes [ ]  No [ ]  I prefer not to answer  |
| Identify as a member of a racialized community\*? [ ]  Yes [ ]  No [ ]  I prefer not to answer  |
| Affiliations (check all that apply): [ ]  SCN [ ]  BioCanRx  |
| Institution name and city:  |
| Email Address:  |
| **SECOND TEAM MEMBER INFORMATION** |
| Surname:  | Given Names:  |
| Citizenship\*?: [ ]  Canadian (including permanent resident) [ ]  International |
| Gender\*?: [ ]  Woman [ ]  Man [ ]  Gender-fluid, non-binary and/or Two-Spirit [ ]  I prefer not to answer  |
| Do you identify as Indigenous, that is First Nation, Métis, or Inuk (Inuit)?\* [ ]  Yes [ ]  No [ ]  I prefer not to answer  |
| Do you identify as a person with a visible or invisible disability\*? : [ ]  Yes [ ]  No [ ]  I prefer not to answer  |
| Identify as a member of a racialized community\*? [ ]  Yes [ ]  No [ ]  I prefer not to answer  |
| Position and year of study *(i.e. MSc Student, PhD Student, Post-Doc, Research Associate, Technical staff)*:   | Email Address:  |
| **THIRD TEAM MEMBER INFORMATION (if applicable)** |
| Surname:  | Given Names:  |
| Citizenship\*?: [ ]  Canadian (including permanent resident) [ ]  International |
| Gender\*?: [ ]  Woman [ ]  Man [ ]  Gender-fluid, non-binary and/or Two-Spirit [ ]  I prefer not to answer  |
| Do you identify as Indigenous, that is First Nation, Métis, or Inuk (Inuit)?\* [ ]  Yes [ ]  No [ ]  I prefer not to answer  |
| Do you identify as a person with a visible or invisible disability\*? : [ ]  Yes [ ]  No [ ]  I prefer not to answer  |
| Identify as a member of a racialized community\*? [ ]  Yes [ ]  No [ ]  I prefer not to answer  |
| Position and year of study *(i.e. MSc Student, PhD Student, Post-Doc, Research Associate, Technical staff)*:   | Email Address:  |

**Section 2: Application Questions**

1. Provide an overview of your current research interest (Max. 1/2 page).
2. Describe how you currently implement best practices in your lab (e.g. documentation of your research activities, establishment of standard operating procedures, standardizing reagents etc) (max. 1/2 page).
3. Describe any current challenges with reproducibility, data quality, or difficulties in gathering experimental data. (max. 1/2 page).
4. What are you hoping to gain from this workshop? Include specific details on how attending this workshop will advance your research (max. 1/2 page).
5. Describe your plans for disseminating the information learned at this workshop with others in your home lab or institute (max. 1/2 page).