

Responsible Conduct of Research (RCR)

TUTORIAL COVERING KEY CONCEPTS
FOR UCN RESEARCHERS

Office of Research, Directorate of Research and Academic Innovation

October 1, 2023

What you will learn

Part A: What NOT to do – real examples drawn from some Canadian post-secondary institutions.

Part B: What you will need to know and do to conduct research in a responsible manner.

Part C: Why #2 above is important.

Part D: Resources to continue building your knowledge and proficiency in RCR.



PART A: WHAT NOT TO DO – REAL EXAMPLES
DRAWN FROM SOME CANADIAN
POST-SECONDARIES

Context

Canada's **Panel on Responsible Conduct of Research** contributes to better governance of the responsible conduct of research in Canada.

It does this by promoting the responsible conduct of research, and by enhancing public trust in research activities undertaken under the auspices of Canadian institutions receiving funding from the Natural Sciences and Engineering Research Council (NSERC), Social Sciences and Humanities Research Council (SSHRC), and Canadian Institutes of Health Research (CIHR).

These three bodies are referred to collectively as “the Tri-Agencies”, or simply “the Agencies.”

Context

In late 2017, the Panel on Responsible Conduct of Research released file summaries of every confirmed breach of the ***Tri-Agency Framework: Responsible Conduct of Research (RCR)*** that involved applications to, or funding by, the Agencies or any Tri-Agency programs.

The summaries cover the period since the launch of the Framework in December 2011. They are anonymized, in keeping with provincial and federal privacy legislation.

Context

Selected summaries representative of the 6 breaches listed below follow in the next series of slides:

- ❑ Plagiarism
- ❑ Mismanagement of grant funds
- ❑ Misrepresentation in a grant application
- ❑ Falsification of data
- ❑ Breach of Agency policy /requirements for certain types of research
- ❑ Mismanagement of conflict of interest



PLAGIARISM

File 29 – *Allegation*: Plagiarism

Findings:

R, a faculty member, used parts of the work of his/her students in a book, without appropriate referencing. R acknowledged the plagiarism but claimed it was accidental and the result of carelessness.

Institutional Disposition:

- ❑ Revoked R's title at the Institution and placed a permanent letter of reprimand in his/her file;
- ❑ Required R to prepare letters to the two students stating that their writing is indeed their own, and confirming that they had not engaged in plagiarism of material from R's book. The intent is that the letters could be submitted to journal editors or book publishers, along with their work, should the students choose to publish, and *(see next slide)*

File 29 – *Allegation*: Plagiarism

- Asked R's publisher to acknowledge the students in future versions of the book and in its advertising.

Agency Recourse:

- Declared R ineligible to apply for Agency funding and to participate in Agency peer review processes, both for two years.



MISMANAGEMENT OF GRANT FUNDS

File 21 – *Allegation*: Mismanagement of grant funds

Findings:

R, a faculty member, charged ineligible expenses under \$5,000 to his/her research account.

Internal Disposition:

- ❑ Suspended R for one month, without pay; and
- ❑ Reimbursed the ineligible expenses to the Agency.

Agency Recourse:

- ❑ Issued a letter of reprimand to R advising him/her of his/her responsibility as a grant holder to manage funds in accordance with Agency policies; and of the importance of keeping documentation to support grant-related expenses.



MISREPRESENTATION IN A GRANT APPLICATION



File 7 – *Allegation*: Misrepresentation in a grant application

Findings:

R, a faculty member, unintentionally failed to reference his/her new journal publication in a grant application and CV. The error was interpreted to be the result of incomplete and careless review and revision.

Institutional Disposition:

- ❑ Provided R with training focused on the *Tri-Agency Framework: Responsible Conduct of Research* and institutional policies; and
- ❑ Required R's grant applications to be reviewed by the Institution's RCR contact before submission, for three years.

Agency Recourse:

- ❑ Declared R ineligible to participate in Agency peer review processes for two years.



FALSIFICATION OF DATA

File 8 – *Allegation*: Falsification of Data

Findings:

Two figures in a publication were intentionally falsified. It was not possible to determine whether R, a faculty member, or his/her lab technician had falsified the data. However, as Principal Investigator and as first author of the publication, R was ultimately responsible. Another of R's publications contained previously published data as well as incorrect data, which were caused by miscommunication and carelessness. R's procedures for data management, organization and archival protection did not comply with the Institution's requirements on the conduct of research.

Internal Disposition:

- ❑ Directed R and corresponding authors to correct the two publications;
- ❑ Corrected the research record through the submission of errata and replacement figures; and
- ❑ Directed R to review and revise the procedures in his/her laboratory. *(see next slide)*

File 8 – *Allegation*: Falsification of Data

Agency Recourse:

- ❑ Issued a letter of reprimand to R reiterating his/her responsibilities as a Principal Investigator and author, and stressing the importance of proper management of research data; and
- ❑ Declared R ineligible to apply for Agency funding or to participate in Agency peer review processes, both for a year.



BREACH OF AGENCY POLICY FOR CERTAIN
TYPES OF RESEARCH

File 43 – Breach of Agency policy for certain types of research

Findings:

R falsified a letter of support from an industrial partner and included it in a grant application. Also, R kept high risk pathogens in his/her lab, which was not equipped to handle them. This was done without the consent of the Institution and without approval by the regulatory authority. R also directed his/her assistant and students to deny the presence of the pathogens.

Institutional Disposition:

- ❑ Closed R's lab;
- ❑ Terminated R's employment;
- ❑ Assisted the students of R's lab in continuing their studies and reorienting their work to obtain their degrees; and
- ❑ Reimbursed the grant funds to the Agency. *(see next slide)*

File 43 – Breach of Agency policy for certain types of research

Agency Recourse:

- ❑ Declared R ineligible to hold or apply for Agency funding or to participate in Agency peer review processes, both for five years.



MISMANAGEMENT OF CONFLICT OF INTEREST

File 13 – Mismanagement of conflict of interest

Findings:

R1, a faculty member, provided a letter of support for a fellowship application submitted by his/her spouse, R2, and agreed to act as supervisor. The spousal relationship was not disclosed in the application. R2 was awarded the Fellowship. Both spouses were in a clear conflict of interest situation. However, the application did not contain false or misleading facts. Some institutional officials, who were involved in the application process, were aware of the conflict of interest but failed to intervene.

Institutional Disposition:

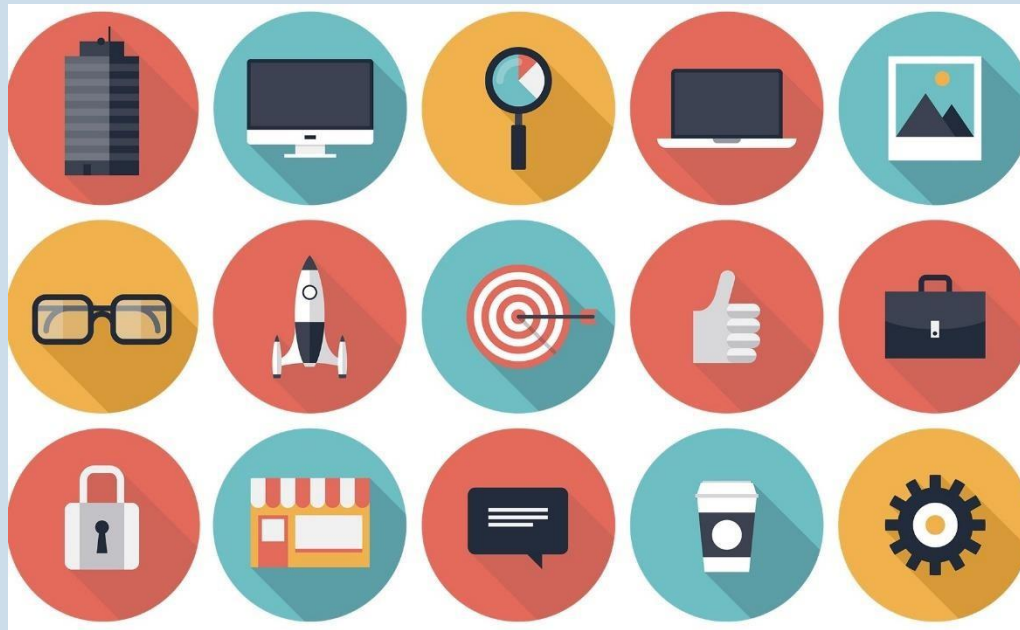
- ❑ Permitted R1 and R2 to work together on the research project described in the application but appointed a replacement supervisor; *(see next slide)*

File 13 – Mismanagement of conflict of interest

- ❑ Prohibited R2 from evaluating any research assistants, affiliates or associates employed by R1; and
- ❑ Advised R1 and R2 to explicitly and clearly disclose their family status in any future applications.

Agency Recourse:

- ❑ Revoked R2's Fellowship; and
- ❑ Issued a letter of reprimand to R1.



PART B: WHAT YOU WILL NEED TO KNOW AND DO TO CONDUCT RESEARCH RESPONSIBLY

1. Know and abide by your institution's RCR policies.

UCN's two foundational policies are:

1. AC-04-02 Integrity in Research and Scholarly Activity

<https://ucn.ca/research/>

2. Conflict of Interest and Commitment in Research and Scholarly Activity

<https://ucn.ca/research/>

In addition to the two key policies on the previous slide, UCN has policies governing the ethics of involving humans in research as well as the use of animals in teaching, research and testing:

1. UCN Policy and Procedures Governing Ethical Conduct of Research Involving Humans

<https://ucn.ca/research/>

2. AN-01-01 Use of Animals in Teaching, Research and Testing

<https://ucn.ca/research/>

2. Make referring back to these policies a routine part of your research practice.

Once you start your project, you will likely be so engaged with the everyday details and tasks of accomplishing it that these policies may fade from your immediate view. This is simply an understandable characteristic of human nature.

However, **your task** in conducting research responsibly and professionally is to keep them front and centre at all times. Use them actively as your benchmarks and touchstones to ensure you are not veering off course.

Keep them in a handy, accessible place and refer back to them often as you move through your project.



PART C: WHY KNOWING ABOUT AND CONDUCTING RESEARCH RESPONSIBLY IS IMPORTANT

At first glance, and on a personal level, the reasons for conducting research responsibly are intuitively obvious.

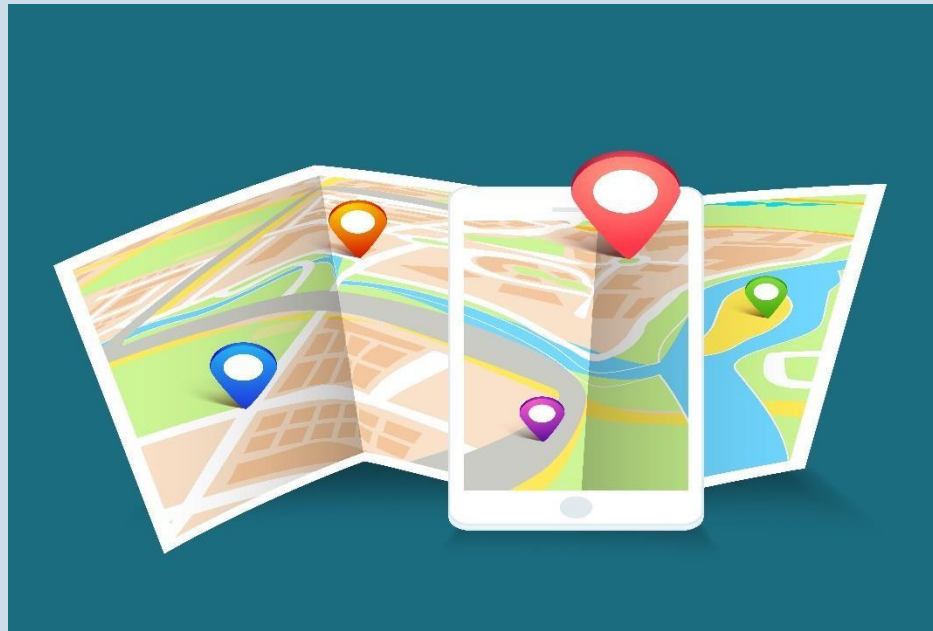
Additionally and at the institutional level, UCN is tasked with fulfilling a range of obligations under the *Agreement on Administering Agency Grants and Awards by Research Institutions* that it has signed with NSERC and SSHRC.

These obligations include the topics previously addressed in this tutorial, i.e. responsible conduct of research, ethical conduct of research involving human participants, and ethical and humane treatment of animals used in research, teaching and testing.

In addition, the *Agreement* also lays out obligations for UCN pertaining to institutional conflict of interest, financial administration of grants and awards, ownership of equipment and facilities supported through grants and awards, and environmental assessments and reviews.

In return for UCN meeting all these obligations on a continuing basis, our institution and its researchers are eligible to apply to the range of grant and award opportunities that NSERC and SSHRC offer.

Should UCN and/or its researchers breach an obligation under responsible conduct of research, or any of these other areas, there is potential for UCN's eligibility with NSERC and SSHRC to be revoked.



PART D: RESOURCES TO CONTINUE BUILDING YOUR KNOWLEDGE AND PROFICIENCY IN RCR

These resources are in addition to the links previously provided in this tutorial

Tri-Agency Framework 2021 Responsible Conduct of Research <https://rcr.ethics.gc.ca/eng/framework-cadre-2021.html>

Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS2 (2022) https://ethics.gc.ca/eng/policy-politique_tcps2-eptc2_2022.html

TCPS2: Course on Research Ethics - 2022 (CORE-2022) Online Tutorial and Certification <https://tcps2core.ca/welcome>

First Nations principles of OCAP® (Ownership, Control, Access and Possession) <https://fnigc.ca/>

Plagiarism in Grant Proposals – The Chronicle of Higher Education December 10, 2012 <https://www.chronicle.com/article/Plagiarism-in-Grant-Proposals/136161>

In Her Own Words – article in Inside Higher Ed April 25, 2014 <https://www.insidehighered.com/news/2014/04/25/investigation-brown-professors-plagiarism-case-goes-public>

False images top form of scientific misconduct – article in Canadian Medical Association Journal June 14, 2016 <http://www.cmaj.ca/content/188/9/645>

For more information, contact:

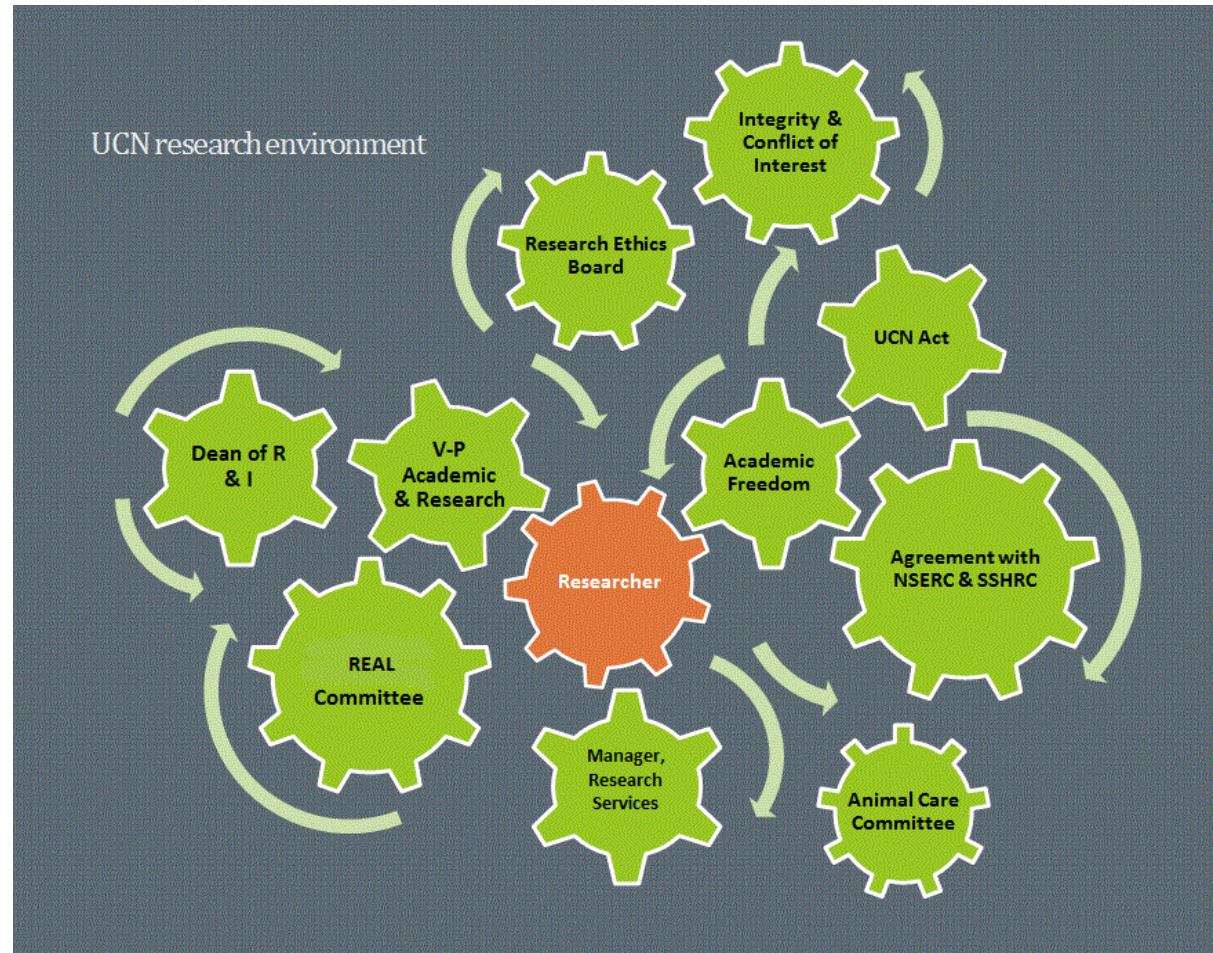
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