

## APPENDIX “A”

The Hearings Committee authorizes the following summary be released of its findings of research misconduct addressing unexplained patterns in the datasets found in the following three papers:

- 1) Laskowski & Pruitt, “Evidence of Social Niche Construction: Persistent and Repeated Social Interactions Generate Stronger Personalities in a Social Spider” Proceedings of the Royal Society of London, Series B:Biological Sciences, 281, no. 1783 (2014);
- 2) Modlmeier et al and Pruitt, “Persistent Social Interactions Beget More Pronounced Personalities in a Desert-Dwelling Social Spider,” Biology Letters 2014 10(8): 20140419; and
- 3) Laskowski, Montiglio & Pruitt, “Individual and Group Performance Suffers from Social Niche Disruption,” The American Naturalist 187, no. 6 (June 1, 2016): 776-85.

The Hearings Committee “the Committee” was satisfied, having considered the relevant facts submitted by the parties, that McMaster University’s *Research Integrity Policy* (“the Policy”) was breached by Dr. Pruitt. The facts provided to the Committee were sufficient to confirm, on a balance of probabilities, that Dr. Pruitt generally failed to meet the requirements expected of a tenured professor under the Policy when conducting research. Specifically, the Committee found that Dr. Pruitt engaged in fabrication and falsification which breached the Policy.

The Committee also found that Dr. Pruitt failed to exhibit the rigour, reasonably necessary to comply with the Policy, in the performance of their research or in reporting their data and findings in the various papers which were examined. In addition, the Committee found that Dr. Pruitt engaged in inadequate record-keeping which breached the Policy, including that Dr. Pruitt did not fulfill their obligations to keep complete and accurate records of their data in a manner that would allow for verification or replication.

In brief, the facts submitted established that data and sequences of data were duplicated in all three papers. The Committee was also satisfied that Dr. Pruitt engaged in fabrication

and falsification with respect to whether spiders were collected for the study conducted and concerning which spiders were used and whether the assays were conducted to support the papers. The positions advanced by Dr. Pruitt to explain the data and sequence duplication were not accepted by the Committee. The Committee also accepted that there are no statistical or biological explanations for the types of duplication observed in the papers.

## APPENDIX “B”

The Hearings Committee authorizes the following summary be released of its findings of research misconduct addressing data anomalies found in the following two papers:

1. Pruitt, Grinsted & Settepani, (2013) “Linking levels of personality: personalities of the ‘average’ and ‘most extreme’ group members predict colony-level personality,” *Animal Behaviour* 86: 391-399.
2. Grinsted, Pruitt, Settepani & Bilde, (2013) “Individual personalities shape task differentiation in a social spider,” *Proc R Soc B* 280: 20131407.

The Hearings Committee (the “Committee”) was satisfied, having considered the relevant facts submitted by the parties, that McMaster University’s *Research Integrity Policy* (“the Policy”) was breached by Dr. Pruitt. The facts provided to the Committee were sufficient to confirm, on a balance of probabilities, that Dr. Pruitt generally failed to meet the requirements expected of a tenured professor under the Policy when conducting research. Specifically, the Committee found that Dr. Pruitt engaged in fabrication and falsification which breached the Policy.

The Committee also found that Dr. Pruitt failed to exhibit the rigour, reasonably necessary to comply with the Policy, in the performance of their research or in reporting their data and findings in the various papers which were examined. In addition, the Committee found that Dr. Pruitt engaged in inadequate record-keeping which breached the Policy, including that Dr. Pruitt did not fulfill their obligations to keep complete and accurate records of their data in a manner that would allow for verification or replication.

Based on the facts submitted, the Committee was satisfied that there is a duplication of values within data sets across the two papers. The Committee accepted that Dr. Pruitt engaged in fabrication and falsification based on the facts submitted where re-analyses of the (boldness) data across these papers are repeated at a level that is not explained by chance or biological process. The explanation provided by Dr. Pruitt’s for the data duplication were not accepted by the Committee. Therefore, based on the facts submitted, the Committee found that Dr. Pruitt had breached the Policy.

## APPENDIX “C”

The Hearings Committee authorizes the following summary be released of its findings of research misconduct addressing the following paper:

- Pruitt & Goodnight (2014). “Site-specific group selection drives locally adapted group compositions”. *Nature*. 514. 10.1038/nature13811

The Hearings Committee (the “Committee”) was satisfied, having considered the relevant facts submitted by the parties, that McMaster University’s *Research Integrity Policy* (“the Policy”) was breached by Dr. Pruitt. The facts provided to the Committee were sufficient to confirm, on a balance of probabilities, that Dr. Pruitt generally failed to meet the requirements expected of a tenured professor under the Policy when conducting research. Specifically, the Committee found that Dr. Pruitt engaged in fabrication and falsification which breached the Policy.

The Committee also found that Dr. Pruitt failed to exhibit the rigour, reasonably necessary to comply with the Policy, in the performance of their research or in reporting their data and findings in the paper which was examined. In addition, the Committee found that Dr. Pruitt engaged in inadequate record-keeping which breached the Policy, including that Dr. Pruitt did not fulfill their obligations to keep complete and accurate records of their data in a manner that would allow for verification or replication.

In brief, the facts submitted establish that the additional results presented in *Nature* were fabricated. Some important considerations included that:

- a) 14 months was insufficient for doing the experiments and analysis related to the new data and that the time frame for two specific steps in the reported protocol represented improbable biological outcomes;
- b) the time and resources that would have been needed to perform the additional experiments are not compatible with Dr. Pruitt’s accounts and recollections;
- c) the annual life cycle of spiders was not compatible with the timeline presented; and that the process for accelerated mating and maturity of spiders was not documented by Dr. Pruitt and has not been found to be reported in the literature.

Thus, the Committee accepts the conclusion of the University Officer that the additional results presented in Nature never occurred and were simply fabricated.

Furthermore some of the methods used were not what is presented in the paper. The Committee is satisfied that the methods identified were misleading and unreliable.

Therefore, based upon the facts submitted, the Committee found that Dr. Pruitt had breached the Policy.

## APPENDIX “D”

The Hearings Committee authorizes the following summary be released of its findings of research misconduct addressing the following two papers:

1. Keiser & Pruitt, (2014) “Spider aggressiveness determines the bidirectional consequences of host–inquiline interactions,” *Behavioral Ecology*, 25(1), 142–151.
2. Pinter-Wollman, Keiser, Wollman & Pruitt, (2016) “The Effect of Keystone Individuals on Collective Outcomes Can Be Mediated through Interactions or Behavioral Persistence,” Vol. 188, No. 2 *The American Naturalist*.

The Hearings Committee (the “Committee”) was satisfied, having considered the relevant facts submitted by the parties, that McMaster University’s *Research Integrity Policy* (“the Policy”) was breached by Dr. Pruitt. The facts provided to the Committee were sufficient to confirm, on a balance of probabilities, that Dr. Pruitt generally failed to meet the requirements expected of a tenured professor under the Policy when conducting research. Specifically, the Committee found that Dr. Pruitt engaged in fabrication and falsification which breached the Policy.

The Committee also found that Dr. Pruitt failed to exhibit the rigour, reasonably necessary to comply with the Policy, in the performance of their research or in reporting their data and findings in the various papers which were examined. In addition, the Committee found that Dr. Pruitt engaged in inadequate record-keeping which breached the Policy, including that Dr. Pruitt did not fulfill their obligations to keep complete and accurate records of their data in a manner that would allow for verification or replication.

In brief, the facts submitted and accepted by the Committee confirmed that identical values from the paper, studying one species were transferred to the paper published years later studying a different species. Dr. Pruitt did not provide a factual explanation of how this had happened, and their explanation was not accepted by the Committee. Dr. Pruitt’s “hypothesis” for why and how data from one study would be transferred to the data set of another study and end up being inserted in the manuscript was not accepted by the Committee because the “why” does not make sense and the “how” is not even hypothesized.

Therefore, based upon the facts submitted, the Committee found that Dr. Pruitt had breached the Policy.