1. KIMBERLEY JAYNE DEJ

2. Business Address

Department of Biology
1280 Main Street West
Hamilton, Ontario, L8S 4K1
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3. Educational Background

- Ph.D., Johns Hopkins University, Department of Biology, Baltimore, Maryland, USA, 1999
- B.Sc., Honours (Specialization, Molecular Biology and Molecular Genetics; Major, Zoology; Minor, Botany), University of Toronto, Trinity College, Toronto, Ontario, Canada, 1992

4. Current Status

- Assistant Professor, Department of Biology
- CLA July 2004 to July 2009
- Teaching Professor July 2009 to present
- Permanence conferred July 2014

5. Professional Organizations

- American Society for Cell Biology
- Genetics Society of America
- Biology Directors Consortium
- Society for Teaching and Learning in Higher Education (STLHE)

6. Employment History

a. o September 1999 to August 2004, Postdoctoral Fellow, Whitehead Institute for Biomedical Research, M.I.T., Cambridge, MA, USA
o January 1993 - September 1994, Master of Science research and coursework, University of Toronto, Department of Zoology, Toronto, Ontario, Canada

b. *Not applicable*

c. *Not applicable*

7. Scholarly and Professional Activities

a. 2014, Chapter editor, Biology Textbook: *How Life Works*

b. *Not applicable*

c. Director (2009 to 2011) and Associate Director (2011 to 2014) of the Life Sciences Program

d. *Not applicable*

e. 2008-2011, Ontario Graduate Scholarship (OGS) selection panel

8. Areas of Interest:

Research:

My research interests are closely tied to my teaching practices, particularly directing honours undergraduate research projects. Recently these interests have centered on the Nematode Diversity Project in collaboration with Dr. Bhagwati Gupta. This is part of a continuing project to identify new species of nematodes and perhaps a sister species of *C.elegans.* This project is run with 6 to 8 undergraduate students each year. The data is being accumulated and stored on a public database. Students that participate in the project learn a variety of techniques from fieldwork to microscopy and from DNA sequencing to phylogenetic analysis.

Teaching:

Innovations in teaching are centered around the development of authentic research opportunities for undergraduate students. This includes the development of a theme-based research project in Biology 1A03 (Introduction to Molecular and Cellular Biology, the amylase gene project) and the integration of personal genome testing in Molecular Biology 2C03 (Genetics). I am now studying the impact of these experiences on student engagement. A third project is the development of resources and approaches that enable multiple students to collaborate as a group in learning lab skills and techniques, while maintaining the autonomy of an independent thesis project. This includes the development of an iBook lab manual for the Nematode Diversity Project. I am currently exploring the impact of peer-learning and peer teaching on the thesis experience and how this iBook tool may be translatable to other undergraduate research projects at McMaster University and elsewhere.

Recent teaching innovations in the classroom have focused upon the use of online modules in blended learning. The combination of online lectures for the core material and live lectures for the applied material and current research is a model that was first applied to Biology2B03 (Cell Biology) and then to Biology1A03 (Introduction to Molecular and Cellular Biology). The application of this model in biology courses is rare and we are finding that students are responding positively to the format.

Research and Development in Teaching:

Four current themes in my pedagogical research are (1) assessing the value of authentic research opportunities for students in large enrolment programs to encourage independent undergraduate lab research early and often and the impact of the research experience on the student engagement; comparing student experience in group research projects to individual research projects; (2) the application of online modules in blended learning; (3) preconceptions and misconceptions in the Life Sciences including Math Concept Inventories in Life Sciences and Genetics Concept Inventories; and (4) scientific literacy in the Life Sciences.

9. Honours

Research:

- Canadian Institutes of Health Research (CIHR) Postdoctoral Fellowship, April 2001 - July 2004
- Margaret and Herman Sokol Fellowship in Biomedical Research, October 2001 - September 2002
- Leukemia Research Foundation Postdoctoral Fellowship, July 2000 – April 2001

Teaching:

- Paul R. MacPherson Teaching Fellowship, July 2015
- President's Award for Outstanding Contributions to Teaching and Learning, June 2014
- McMaster Student Union Teaching Award in Science, 2010
- Professor of the Semester, McMaster Biology Student Society, Winter 2011
- Professor of the Semester, McMaster Biology Student Society, Winter 2010
- Professor of the Semester, McMaster Biology Student Society, Fall 2007

10. Courses Taught

a. Undergraduate

2015-2016	Winter	CMTYENGA 2A03 Introduction to Community Engagement
(15 units)		Biology 2BO3 Cell Biology
(3 units buyout		Biology 1A03 Introduction to Molecular and Cellular Biology
for fellowship)	Fall	CMTYENGA 2A03 Introduction to Community Engagement *(New)*
		Biology 2BO3 Cell Biology
		Life Science 2AO3 Research Methodologies in the Life Sciences
		Biology 2C03/Molecular Biology 2C03 Genetics
		Biology 1A03 Introduction to Molecular and Cellular Biology

2015 *(1.5 units)*	Spring	Molecular Biology 3D03 Advanced Cell Biology Lab *(New)*
2014-2015	Winter	Biology 2BO3 Cell Biology
(16.5 units)		Biology 2C03 Genetics
		Life Science 2AO3 Research Methodologies in the Life Sciences
		Life Science 2GO3 Genes, Genomes, and Society
	Fall	Biology 2BO3 Cell Biology
		Life Science 2AO3 Research Methodologies in the Life Sciences
		Life Science 3MO3 Cellular Dynamics
		Biology 2C03/Molecular Biology 2C03 Genetics
2014 *(3 units)*	Spring	Biology 2BO3 Cell Biology
2013-2014	Winter	Biology 2BO3 Cell Biology
(13.5 units)		Life Science 2AO3 Research Methodologies in the Life Sciences
(3 units buyout		Life Science 2GO3 Genes, Genomes, and Society *(New)*
for Bio1A03	Fall	Biology 2BO3 Cell Biology
development)		Life Science 2AO3 Research Methodologies in the Life Sciences
		Life Science 3MO3 Cellular Dynamics *(New)*
2013 *(6 units)*	Spring	Biology 2BO3 Cell Biology *(Blended)*
		Biology 2CO3 Genetics
2012-2013	Winter	Biology 2BO3 Cell Biology
(19.5 units)		Biology 2CO3 Genetics/Molecular Biology 2C03
		Life Science 2AO3 Research Methodologies in the Life Sciences
		Life Science 3AO3 Health and Disease
	Fall	Biology 2BO3 Cell Biology
		Biology 2CO3 Genetics
		Life Science 2AO3 Research Methodologies in the Life Sciences
		Life Science 3AO3 Health and Disease
2012 *(6 units)*	Summer	Biology 2BO3 Cell Biology
		Biology 2CO3 Genetics
2011-2012	Winter	Biology 2BO3 Cell Biology
(19.5 units)		Biology 2CO3 Genetics
		Life Science 2AO3 Research Methodologies in the Life Sciences
		Life Science 3AO3 Health and Disease
	Fall	Biology 2BO3 Cell Biology
		Life Science 2AO3 Research Methodologies in the Life Sciences
		Life Science 3AO3 Health and Disease
		Life Science 4DO3 Research Seminar *(New)*
2011 *(3 units)*	Summer	Biology 2BO3 Cell Biology
2010-2011	Winter	Biology 2CO3 Genetics
(10.5 units)		Biology / Life Science 2BO3 Cell Biology

		Life Science 3AO3 Health and Disease *(New)* Molecular Biology 3HH3 Cytoplasm
	Fall	*on parental leave*
2010 *(6 units)*	Spring	Biology 2BO3 / Life Science 2B03 Cell Biology Biology 2C03 Genetics
2009-2010	Winter	Biology 2CO3 Genetics
(9 units)	Fall	Biology 2BO3 / Life Science Cell Biology Life Science 2AO3 Research Methodologies in the Life Sciences *(New)*

b. Postgraduate: *Not applicable*
c. Graduate: *Not applicable*
d. Other: *Not applicable*

11. Contributions to Teaching Practice

a. Pedagogic innovation and/or development of technology enhanced learning

- *(In progress)* Molecular Biology 2C03: Genetics. Introducing personalized genome testing in Fall 2015 in collaboration with Drs. Mihaela Georgescu, Bhagwati Gupta, and Xu-Dong Zhu. Funding provided by MIIETL Teaching and Learning grant.
- Establishment of the Undergraduate Cell Biology Laboratory in Burke Sciences, BSB 207 in Spring 2015 in collaboration with Dr. Rosa da Silva, Alison Cowie, and Ryan Belowitz. This is a dedicated cell culture and microscopy facility for undergraduate courses in Biology and across the Faculty of Science. Funding provided through The University Fund.
- Biology 2B03: Cell Biology. Modified to a blended learning format in Spring 2013. Development of podcasts followed by recording of "Step-through" lectures using Articulate software in Fall 2014.
- Biology 1A03: Introduction to Cell and Molecular Biology. Created personalized, theme-based laboratories based upon the evolution of the amylase gene repeats. Developed in Winter/Spring 2014 in collaboration with Alastair Tracey and Ryan Belowitz. Funded by Forward with Integrity
- Biology 1A03: Introduction to Cell and Molecular Biology. Modified to a blended learning format in Spring 2014. Development of *de novo* "Step-through" lectures using Articulate software in Fall 2013 to Spring 2014 (Committee working primarily with Dr. Rosa da Silva on lectures and quizzes; editorial committee from the Department of Biology; Technology support from Science Media Labs (SML, Faculty of Science)
- Establishment of the Applied Undergraduate Learning Lab for Undergraduate Research (ALLURE) in collaboration with Dr. Rosa da Silva. This space is dedicated undergraduate research space that will be used by thesis students supervised by Teaching Professors or co-supervised in collaborative projects. This space has been established based upon the principle of collaborative undergraduate research projects that have occurred under my supervision for the past 10 years with a total of about 70 students in thesis projects, placement projects, and volunteer positions.
- Life Science 3A03: Health and Disease. Introduction of career-focused tutorials and learning portfolios in 2013
- Life Science 2A03: Research Methodologies in Life Sciences. Introduction of electronic Learning Portfolios into core Life Sciences course in 2013. Project funded by Forward with Integrity.
- Life Science 3A03: Health and Disease. Module-based course co-taught across four departments. I introduced and organized "Writing to Learn" assignments for guest modules in 2010 to 2013.
- Biology 2B03 and Life Science 2A03. Online Peer-Evaluation tools applied to essay writing in in 2010 to 2013.
- Biology 2B03: Cell Biology. Introduction of online dry-labs to replace wet-labs in in 2008 in collaboration with Lori Goff.

b. Leadership in delivery of educational programs

- Director (2009 to 2011) and Associate Director (2011 to 2014) of the Life Sciences Program
- Dean's Working Group to revise Life Sciences curriculum (Winter 2015)
- Dean's Working Group to develop lab space for new School of Interdisciplinary Science (Spring 2015)
- Productivity and Innovation (PIF)-funded surveys, focus groups, and forums with Life Sciences students to assess program opportunities and learning outcomes. Data analysis of Life Science graduates to assess program outcomes.

c. Course and/or curriculum development

- *New course,* Fall 2009. Life Science 2A03: Research methodologies in Life Sciences
- *New course,* Fall 2011. Life Science 4D03: Research Seminar (Topic: Science Communication)
- *New course,* Winter 2011. Life Science 3A03: Health and Disease
- *New course,* Fall 2013. Life Science 3M03: Cellular Dynamics
- *New course,* Winter 2014. Life Science 2G03: Genes, Genomes, and Society
- *New course,* Spring 2015. Molecular Biology 3D03: Advanced Cell Biology Lab
- Stepwise integration of digital Learning Portfolios into the Life Sciences Program from Fall 2013 to present (Funded by Forward With Integrity, FWI)
- *New course,* Fall 2015, CMTYENGA 2A03: Community Engagement in collaboration with Dr. Sheila Sammon, Social Work, McMaster University

d. Development/evaluation of educational materials and programs

- Invited editor on *How Life Works*, Second edition, James R. Morris, et al. MacMillan Higher Education. *In preparation.*
- Invited participant for "Adopters Camp" for the textbook *How Life Works*, James R. Morris, et al. MacMillan Higher Education in Winter 2013 and Fall 2014.
- Invited editor on *Genetics: An Integrated Approach*, First edition, Mark F. Sanders and John L. Bowman. Pearson Education Inc. Published in 2011.

e. Other

- Co-organizer for McMaster Mentoring Action Program (MMAP), funded through Forward with Integrity, Spring 2015.
- Organizer and speaker for Science 1A03: Investigating Science Engaging Talk (Life Sciences Program, Fall 2014 and 2015)
- Organizer for Science 1A03: Investigating Science Engaging Talk (Department of Biology, Fall 2014 and 2015)
- Faculty panel member at the Learning Portfolio showcase, McMaster University
- Academic Science Fund project: BioIllustration Suite, 2014.
- Academic Science Fund project: Science and Art Exhibition, 2013.
- Academic Science Fund project: Nematode Diversity Project, 2012.
- Faculty mentor on student applications for Academic Science Fund Projects. Projects include: Career Toolkit (Website), MIREX (Life Science student research symposium), iGem (International Synthetic Biology competition), Life Science Research seminar series.
- Advisory board for McMaster Children and Youth University (MCYU) 2013 to present
- Speaker for McMaster Children and Youth University (MCYU) Spring 2013

12. Supervisorships

a. Master: *Not applicable*

b. Doctoral: *Not applicable*

c. Postdoctoral: *Not applicable*
d. Clinical/Professional: *Not applicable*
e. Supervisory committees:

- Masters supervisory committee: Sogol Eizadshenass (2011 to 2013; supervisor: R.Singh)
- Masters defense committee: Sogol Eizadshenass (2013; supervisor: R.Singh)
- Masters defense chair: Scott Amon (2013; supervisor: B.Gupta)

f. other: undergraduate thesis, project, placement students:
(for co-supervision, primary advisor is indicated in brackets)

Total completed: 108 undergraduates supervised in laboratory theses/projects or experiential placements.
40 undergraduates co-supervised in laboratory theses/projects.

2015-2016	Supervisor: (5)	Biology 4C09/Origins 4C09: Amina Benmessaoud, Susan He, Olena Strigul, Jennifer Tang, Susan He Life Science/Science 4A03: Kyle Siquioco, Tom Chen Life Science 4EX6: Elena Domazetoska, Darsh Seth
	Co-supervisor: (2)	Kayley Henning (D. Meyre, CE&B), Deann Wah (A.Khan, PNB)
Spring 2015	Supervisor: *(5)*	Life Science 3EP3: K. Boparai, R. Gabaldon, P. Li, Darsh Seth, M. Shaikh
	Co-supervisor (1)	Darsh Seth (J.Stone, Biology)
2014-2015	Supervisor *(14)*	Biology 4F06/Life Science 4B06: Yvette Kuo, Dan Armena, Karen Nyugen, Andrei Dobrin, Olivia Grafinger, Aidan Huynh, Jelena Popov Biology 3RI3/Molecular Biology 3I03/Life Science 3RP3: Tom Chen, Yasamin Farbod, Nayab Ahmad, Jennifer Tang, Susan He, Valentina Cardoza, Noubar Karayakoubian
	Co-supervisor *(5)*	Giuliana Guarna (R.da Silva), Mirella Mazza (A. Khan, PNB), Judith Ng (W. Khan, FHS) Ria Oommen (K.Ask, FHS), Hemisha Patel (K.Ask, FHS)
2013-1014	Supervisor *(12)*	Biology 4FO6/Life Science 4BO6: Zarhraa Al-Tamimi, Zinnia Batliwalla, Patrick Bozek, Theshani de Silva, Raphail Israel, Monica Molinaro, Chelsea Padriano, Uju Adelaide Ubah, Mina Dawood Life Science 3EP3/3EX6: MaryEllen Tedeshi, Kayla Smith, Antaneeta Anthony
	Co-supervisor *(2)*	Owen Litwin (E.Vardu, FHS), Ranke Lie (J.Stone)
2012-1013	Supervisor *(14)*	Biology 4FO6/Life Science 4BO6: Freda Wu, Sasha Doodnauth, Sehrish Zehra, Kriti Chandna, Hae-Ri Lee, Kevin Chin, Jas Gill, Aman Bhamber, Subtain Ali, Gagandeep Sawana, Sana Owais Life Science 3EP3/3EX6: Vitheya Thanabalan, Meenju Viswathasan, Jessica Zhang
	Co-supervisor *(4)*	Rachel Kelly (H.Shellhorn), Jordan Khankhet (J.P.Xu), Anam Quraishi (B.Gupta), John Brbensky (J.Stone)

2011-1012	Supervisor *(12)*	Biology / Life Science 4CO9: Lucy Ambrosziewski, Laura Izakelian, Caroline Kassee, Brittany Staboon, Bhavna Samtani, Jessica Wallis, Hetal Patel, Biology 4FO6/Life Science 4BO6: Gurpreet Panesar, Rajpreet Panesar, Sara Samaan Science 3EP3: Karlee Hourtovenko, Cayli Hunt,
	Co-supervisor *(3)*	Michael Chong (B.Gupta), Abhijeet Badmash (J.Stone), Andrea Sommers (R.Jacobs)
2010-1011	Supervisor *(10)*	Biology / Life Science 4CO9: Nayasta Ademmana, Diane Ojo Biology 4FO6/Life Science 4BO6: Ismat Jahan, Matthew Liyeunfong, Jessamine Leung Science 3EP3: Michael Chong, Adam Jokhio, Nimasha Weliwitigoda, Mariam Ansari, Megan Hophing,
2009-2010	Supervisor: *(15)*	Biology 4CO9: Jessie Chau, Jeffrey Lee, Sogol Eizadshenass Science 4BO6/Biology4FO6: Stephanie Edgely, Marry Fernandez, Sanja Sopic, Tiffany Tran, Aisha Zafardi Science 3EP3: Natasha Corren, Haneesha Mohan, Sahra Nathoo, Theodora Maxine Yu, Dima Omar, Nirvana Prashant, Stephanie Syers
	Co-supervisor: *(7)*	Aakash Bhargava (A.Khan, FHS), Connie Cheng (L.Doering, FHS), Mohamed El-Rabbany (A.Khan, FHS), Marriam Khan (L.Giglia, FHS), Catherine Nguyen (J.Daniel), Yaryna Storozhuk (S.Raha, FHS), Sabina Shin (B.Timmon, FHS)
2008-2009	Supervisor: *(6)*	Biology 4CO9: Marek Gruca, Nida Jabrani, Jun Lee, Michelle Kowanda, Bo Ram Park Science 4FO6: Anusha Undwatta
	Co-supervisor: *(5)*	Julene Chung (C.Kaushic), Amy Lundquist (J.Stone), Media Mahdavin (B.Gupta), Jodi Rabenek (R.Jacobs), Goushala Sittampalam (S.Hill, FHS)
2007-2008	Supervisor: *(8)*	Biology 4CO9: Amanda Buchanan, Rebecca de Souza, Courtney Hampel, Aimee Lam, Kathryn McGinnis, Mina Nashed, Rajbir Singh, Ravonne Stuart
	Co-supervisor: *(4)*	Nausheen Mian (R. Cameron), Patricia Pak (M. Elliot), Justine Seuradge (S. Atkinson, FHS), Jimmy Turner (J.Stone)
2006-2007	Supervisor: *(9)*	Biology 4CO9: Kirsten Avarmaa, Chandra Chappel, Philip Cumbo, Kyster Nanan, Meagan Nolan, Fariz Remtulla, Daina Search, Hina Zaidi Inquiry 4SK6 : Akash Agarwal
	Co-supervisor *(2)*	Elizabeth Golesic (J. West-Mays, FHS), Katie Mendelsohn (J.Stone)
2005-2006	Co-supervisor: *(5)*	Biology 4CO9: Ambrose Lau (J. West-Mays, FHS), Marcelina Maciejewski (J. Kolasa), Tram Nguyen (B. Gupta), Marissa Sebastian (J. Kolassa) Faiza Upal (R. Jacobs)

13. Lifetime Research Funding

- Dej, 2015. Paul R. MacPherson Teaching Fellowship, $40 000. Pedagogical research. Title: Engaging undergraduate students in authentic research: Creating a new paradigm for teaching and mentoring students in the lab.
- Dej, Georgescu, Gupta, Zhu, 2015. MIIETL (McMaster Institute for Innovation and Excellence in Teaching and Learning) Teaching and Learning Grant, $2000. Pedagogical research. Title: Engaging students in learning principles of genetics and genomics using personal genome testing.
- Levy, Dej, Piskuric, Khan, da Silva, 2015. McMaster University Forward With Integrity Grant, $5000. Pedagogical research. Title: The McMaster Mentoring Action Program (MMAP) for Undergraduate Students in Science.
- Tracey, Cowie, Dej, and Cameron, 2014. McMaster University Forward With Integrity Grant, $4400. Pedagogical research. Title: Integrating first year students in primary biology research: A feasibility study.
- Dej and da Silva, 2014. McMaster Student Union, Academic Science Fund Application, $4854. Pedagogical research. Title: ALLURE: Undergraduate Research Space
- da Silva and Dej, 2013. McMaster Student Union, Academic Science Fund, $6500. Pedagogical research. Title: Biological Illustration Suite.
- Dej, 2013. McMaster Student Union, Academic Science Fund Application, $1600. Pedagogical research. Title: Visualizing Science.
- Dej and Gupta, 2013. McMaster Student Union, Academic Science Fund Application, $10 000. Pedagogical research. Title: Nematode Diversity Project
- Goff and Dej, 2012. McMaster University Forward With Integrity Grant, $7200. Pedagogical research. Title: A multi-phase proposal to introduce an academic learning portfolio into the Life Sciences Program.
- Chong, Goff, Dej, 2011. McMaster Centre for Leadership and Learning (CLL): Teaching and Learning Grant, $1039. Pedagogical research. Title: To develop a McMaster undergraduate research journal and to assess the effectiveness of methods for teaching undergraduate science writing.
- Dej and Gupta, 2010. McMaster Centre for Leadership and Learning (CLL): Teaching and Learning Grant, $6000. Pedagogical research. Title: Proof of Principle study to investigate collaborative undergraduate research projects in the Life Sciences.
- Dej, 2008. SoTL Summer Research Workshop; Centre for Leadership and Learning (CLL), $1000. Pedagogical research. Identifying teaching methodologies for teaching genetics. Title: Genetics Concept Inventories.

13. Lifetime Publications

a. Peer-reviewed

Alsop, R.A, A. Soomro, Y. Zhang, M. Pieterse, A. Fatona; K. Dej, and M. C. Rheinstädter. Structural Abnormalities in the Hair of a Patient with a Novel Ribosomopathy. *PLOS One* (*submitted, October 2015*).

Chong, M., L. Goff, and K.J. Dej. 2012. Undergraduate Essay Writing: Online and Face-to-Face Peer Reviews. *Collected Essays on Learning and Teaching.* 5: 69-74.

Resnick, T.D., K.J. Dej, Y. Xiang, R.S. Hawley, C. Ahn, and T.L. Orr-Weaver. 2009. Mutations in the Chromosomal Passenger Complex and the Condensin Complex Differentially Affect Synaptonemal Complex Disassembly and Metaphase I Configuration in Drosophila Female Meiosis. *Genetics.* 181(3): 875-887.

Lee, J.Y., K.J. Dej, J.M. Lopez, and T.L. Orr-Weaver. 2004. Control of centromere localization in the MEI-S332 cohesin protection protein. *Curr Biol.* 14(14):1277-1283.

Dej, K.J., C. Ahn and T.L. Orr-Weaver. 2004. Mutations in the Drosophila condensin dCAP-G: defining the role for chromosome condensation in mitosis and gene expression in interphase. *Genetics.* 16(2): 895-906.

Royzman, I., A. Hayashi-Hagihara, K.J. Dej, G. Bosco, J.Y.Lee and T.L.Orr-Weaver. 2002. The E2F cell cycle regulator is required for Drosophila nurse cell DNA replication and apoptosis. *Mech Dev.* 119(2):225-237.

Gunawardane, R.N., O.C. Martin, K. Cao, L. Zhang, K. Dej, A. Iwamatsu and Y. Zheng. 2000. Characterization and reconstitution of Drosophila gamma-tubulin ring complex subunits. *J Cell Biol.* 151(7):1513-1524.

Dej, K.J. and T.L. Orr-Weaver. 2000. Separation anxiety at the centromere. *Trends Cell Biol.* 10(9):392-399.

Dej, K.J. and A.C. Spradling. 1999. The endocycle controls nurse cell polytene chromosome structure during Drosophila oogenesis. *Development.* 126(2): 293-303.

Dej, K.J., T. Gerasimova, V. Corces and J. Boeke. 1998. A hotspot for the Drosophila gypsy retroelement in the *ovo* locus. *NAR* 26(17): 4019-4024.

b. Not Peer Reviewed: *Not applicable*
c. Accepted for Publication: *Not applicable*
d. Submitted for Publication: *Not applicable*
e. Unpublished Documents: *Not applicable*

15. Presentations at Meetings

a. Invited

da Silva, R. and K. Dej, 2015. Re-envisioning first year Biology. How Life Works adopters camp, Boston, Massachusetts.

b. contributed i. peer-reviewed

K. Dej, 2015. Opening doors for more authentic undergraduate research experiences. Research on Teaching and Learning: Creating Communities, McMaster Innovation Park, Hamilton, ON.

da Silva, R. and K. Dej, 2015. Re-envisioning first year Biology. Learning Technologies Symposium. McMaster University, Hamilton, ON.

Robinson, R., P. Chow-Fraser, and K. Dej. 2013. Transitioning From Knowledge Consumers to Knowledge Producers: Research and Community Placements as Transition Experiences. National Conference on Students in Transition. Atlanta, GA.

Chong, M., L. Goff, and K. Dej. 2011. Convenience or Conversation: A comparison of peer-review approaches for essay assignments. The Annual Meeting of the Society for Teaching and Learning in Higher Education. University of Saskatchewan, Saskatoon, SK.

Dej, K. and Goff, L. 2009. Formative evaluation of writing skills in large science classes by means of web-based peer reviews. McMaster SoTL symposium. McMaster University, Hamilton, ON.

Dej, K. and T. Orr-Weaver. 2003. Multiple roles of the condensin subunit dCAP-G during the cell cycle. Poster presented at the 44th Annual Drosophila Research Conference, Chicago, IL.

Dej, K. and T. Orr-Weaver. 2002. Multiple roles of the condensin factor dCAP-G in chromosome dynamics in Drosophila. Oral presentation at the Cell Cycle meeting, Cold Spring Harbor, NY.

Dej, K. and T. Orr-Weaver. 2001. Regulation of the metaphase/anaphase transition in Drosophila meiosis and mitosis: a role for condensation in chromosome separation. Oral presentation at the 5th International Workshop on Chromosome Segregation and Aneuploidy, Chartres, France.

Dej, K. and T. Orr-Weaver. 2001. Identification of mutations that affect the metaphase/anaphase transition: the chromosome condensation factor dCAP-G is required for chromosome separation at anaphase. Poster presented at the 42nd Annual Drosophila Research Conference, Washington, D.C.

Dej, K., I. Royzman, A. Whittaker and T. Orr-Weaver. 2000. Entering anaphase: genes required for sister-chromatid separation in Drosophila melanogaster. Poster presented at the Cell Cycle meeting, Cold Spring Harbor, NY.

Dej, K. and A. Spradling. 1998. Nurse cell polytene chromosomes are dynamically reorganized under cell cycle and developmental controls during Drosophila oogenesis. Poster presented at the Dynamic Organization of Nuclear Function meeting, Cold Spring Harbor, NY.

Dej, K. and A. Spradling. 1997. A heterochromatic ribosomal protein gene is specifically required during oogenesis to maintain nurse cell chromosome organization. Oral presentation at the 38th Annual Drosophila Research Conference, San Diego, CA.

Dej, K., T. Gerasimova, J. Boeke and V. Corces. 1996. gypsy insertion site specificity in the ovo gene region of Drosophila melanogaster. Poster presented at the 37th Annual Drosophila Research Conference. Atlanta, GA.

Dej, K. and E. Larsen. 1995. A second site suppressor of *bx1* in D*rosophila melanogaster*. Poster presented at the 36th Annual Drosophila Research Conference. Chicago, IL.

16. Patents, Inventions, Copyrights

Not applicable

17. Administrative Responsibilities

Departmental Undergraduate (Biology):

- Completion of the ALLURE undergraduate research space in Burke Sciences Building, BSB 207, Spring 2015
- Undergraduate Cell Biology Laboratory *ad hoc* committee, Member, Winter 2015
- Biology 1A03 lab redevelopment Committee, Chair, Spring 2014
- Blending Biology 1A03 Development Committee, Co-Chair, Spring 2013 to Spring 2014
- Instructional Assistant Selection Committee, Member, Winter 2011
- Biology 1MO3 Curriculum Development Committee, Member, Winter 2008
- Biology 1PO3 Curriculum Development Committee, Member,
- Biology Thesis/Project *ad hoc* committee, Member, 2009 to 2010
- Biology Events Committee, Member, 2005 to 2009
- Biology Undergraduate Studies Committee (BUGS), Member, 2004 to present

Departmental Other (Biology):

- Biology Bi-Annual Report Committee, Member, 2004 to 2009
- Genetics Caucus, Member, 2004 to present

McMaster Undergraduate (Life Sciences Program):

- Associate Director, Life Sciences Program, 2011to 2014
- Director, Life Sciences Program, 2009 to 2011

McMaster Undergraduate (Other):

- Dean's Working Group on establishing research space in the School of Interdisciplinary Sciences to be used by the Life Sciences Program, Member. Spring 2015. In association with this, working to design *de novo* the required Level 2 and 3 Life Sciences Lab courses.
- Dean's Working Group on Life Sciences curriculum design, Member, Winter 2015 to present
- McMaster Student Union, Academic Science Fund, Faculty Committee Member, Fall 2014 to Spring 2015.
- Level 1 Science Transition Course Committee and Module Development Representative, 2012 to 2014
- Level 1 Curriculum Review Committee, Member, Fall 2012 to Fall 2013
- Attendance at MSU and Biology Undergraduate Society open-forums from 2012 to 2015.
- Academic Planning and Policy Committee, Member, 2009 to 2014
- Presenter annually at Fall Preview (Life Sciences I talk) and May@Mac (Life Sciences Program talk), 2004 to 2015
- Integrated Science Program Teaching Professor Selection Committee, *ad hoc* member, Fall 2008

18. Other Responsibilities

- Dean's Academic Planning Committee – January 2014 to November 2014
- Co-organizer of Blended Learning Symposium (McMaster University) - December 2014 and 2015
- Applied with Dr. Pat Chow Fraser (Biology and Life Sciences Program) to obtain one-time funding for three research-intensive lab courses in the Life Sciences Program, all of which ran in Spring 2013
- Analyzed cohort data for two years of Life Sciences graduates for use in an internal program review. This information was used by the Dean's Academic Planning Committee and by the Life Sciences Program curriculum Working Group.
- Three faculty search committees in Winter-Spring 2013 for Faculty Teaching Positions: two Teaching Professor positions appointed to PNB (with teaching in Life Sciences), one CLA position appointed to Biology (with teaching in Life Sciences)
- Conducted, analyzed, and summarized two surveys of Life Sciences students. Each online survey was followed by a series of focus-group studies (Spring 2014) or an open-forum (Winter 2015)
- Applied for Provincial Productivity and Innovation Fund (PIF) funding in collaboration with MIIETL (McMaster University) to obtain funding for studying learning outcomes with the company, Brightspace (formally D2L). A substantial part of this funding involved working with MIIETL and Brightspace to establish methodologies for measuring student outcomes in the Life Sciences Program
- Worked with the Chair of Biology (R. Jacobs) to obtain funding ($200 000) to renovate and provide equipment for the Cell Biology Undergraduate Laboratories in BSB 207. Member of committee to plan new undergraduate research space. Lab set-up by Alison Cowie (IA) and Rosa da Silva (CLA).
- Formally established ALLURE (Applied Learning Laboratory for Undergraduate Research Excellence) in BSB 201. Based upon the undergraduate research lab that I established in 2006.
- Established Learning Portfolios in Life Sciences 2A03 and Life Sciences 3A03 (with Forward With Integrity funding). This is part of a process that will continue with incorporating a required portfolio component in placement, thesis, and 4th year seminar courses. This culminates in a program-wide application of a Learning Portfolio in the Life Sciences program. This should be completed by Fall 2016.
- Participation in the Creativity and Research forum through the Faculty of Humanities in Spring 2014 and Summer 2015.
- Participation in Women in Science and Engineering Events (WISE) including judging the research symposium in Spring 2015.