

# Amanda Dawn Melin

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 Calgary, Alberta, Canada T2N 1N4

## Foraging Behaviour, Sensory Ecology, Genetics & Genomics, Primate Evolution

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### PROFESSIONAL APPOINTMENTS

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<b>Canada Research Chair, Assistant Professor</b> <i>Department of Anthropology and Archaeology &amp;          Department of Medical Genetics</i> University of Calgary, Calgary, Alberta, Canada	<b>Jan 2016-          present</b>
<b>Visiting Assistant Professor</b> <i>Department of Integrated Biosciences</i> University of Tokyo, Kashiwa, Chiba, Japan	<b>Jun 2018-          July 2018</b>
<b>Assistant Professor</b> <i>Department of Anthropology</i> Washington University, St. Louis, Missouri, USA	<b>Jan 2014-          Dec 2015</b>
<b>Postdoctoral Fellow</b> <i>Department of Anthropology; Ecology and Evolutionary Biology</i> Dartmouth College, Hanover, New Hampshire, USA	<b>Jun 2011-          Dec 2013</b>

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### EDUCATION

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<b>Doctor of Philosophy</b> <i>Department of Anthropology</i> University of Calgary, Calgary, Alberta, Canada	<b>Jan 2006-          June 2011</b>
<b>Master of Arts</b> <i>Department of Anthropology</i> University of Calgary, Calgary, Alberta, Canada	<b>Sep 2003-          Jan 2006</b>
<b>Bachelor of Science with Distinction</b> <i>Department of Biological Sciences</i> University of Calgary, Calgary, Alberta, Canada	<b>Sep 1998-          May 2003</b>

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**SUMMARY OF RESEARCH PROGRAMS**


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<b>Dietary and sensory ecology.</b> Hypotheses of key events in primate evolution hinge on relationships between diet, activity pattern, and sensory systems. I investigate primate origins and adaptive radiation of through this framework. I seek to understand how the senses guide food choice, and how diet shapes evolution of primate sensory systems. I have chaired symposia at international conferences (2008, 2016, 2018) and AAAS (2017), and co-edited special issues of journals on this topic.	<b>2004-present</b>
<b>Impacts of climate variation on primate diet and health.</b> I investigate seasonal and interannual effects of changing climates on primate diets and health, particularly gut microbiota and parasitic infection, through co-directing primate research in Santa Rosa, Costa Rica, with Drs. Linda Fedigan and Kathy Jack.	<b>2014-present</b>

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**RESEARCH GRANTS AND AWARDS**


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**Current and Pending Grants and Fellowships**

University of Calgary Seed Grant “Health responses to drought in free-ranging primates: assessing metabolomics, parasitic infection, inflammation and the gut microbiome”	\$15 000 (CAD)	<b>2018-2019</b>
National Sciences and Engineering Research Council of Canada Discovery Grand and Discovery Accelerator Supplement: “Primate dietary ecology and sensory evolution” PI <i>Awarded</i>	\$310 000 (CAD)	<b>2017-2021</b>
Canadian Foundation for Innovation: “Primate genomics and dietary ecology” PI <i>Awarded</i>	\$768 000 (CAD)	<b>2017-2020</b>
National Geographic: “Do animals drive the evolution of fruit traits?” Co-PI <i>Awarded</i>	\$24 700 (USD)	<b>2017-2018</b>
University of Calgary Inflammation, Infection and Chronic Disease Award: “The bugs-to-drugs initiative” Co-PI <i>Awarded</i>	\$250 000 (CAD)	<b>2016-2019</b>
The Wenner-Gren Foundation: “Olfaction as an adaptation to hunting and gathering in the rainforest: testing old hypotheses with new approaches” Senior Personnel (Co-PI) <i>Awarded</i>	\$20 000 (USD)	<b>2015-2017</b>

**Past Grants and Fellowships**

International Center for Advanced Renewable Energy and Sustainability (I-CARES) Grant	\$25 000 (USD)	<b>2014-2015</b>
NSERC Postdoctoral Fellowship	\$80 000 (CAD)	<b>2012-2014</b>
Clair Garber Goodman Research Fund	\$4 250 (USD)	<b>2012</b>
P.E.O. International Postdoctoral Scholar Award	\$15 000 (USD)	<b>2011-2012</b>
Wenner-Gren Dissertation Fieldwork Grant	\$17 139 (USD)	<b>2009-2010</b>
Alberta Odd Fellow Rebekah Visual Research Award	\$1 200 (CAD)	<b>2009-2010</b>
Sigma-Xi Grant-In-Aid of Research	\$500 (USD)	<b>2008-2009</b>
The Leakey Foundation General Research Grant	\$13 420 (USD)	<b>2007-2009</b>
NSERC Canada Graduate Scholarship, Doctoral	\$70 000 (CAD)	<b>2007-2009</b>
Animal Behaviour Research Grant	\$1 000 (USD)	<b>2007-2008</b>
Alberta Ingenuity Fund Scholarship	\$106 000 (CAD)	<b>2004-2009</b>

NSERC Postgraduate Scholarship A, Masters	\$34 600 (CAD)	2003-2005
American Society of Primatologists Research Grant	\$1 500 (USD)	2004
9 additional institutional awards during graduate work	> \$57 000 (CAD)	2003-2011

### Honors and Leadership Awards

Killam Emerging Research Leader Award	2018
Faculty of Arts Research Excellence Award	2018
Canada Research Chair (NSERC stream, Tier II- Junior Scientist)	2017-2021
Canadian Society of Zoologists Public Education Award (Host-Parasite Interactions)	2018
Excellence in Supervision Award – University of Calgary	2017
American Society of Primatologists Early Career Achievement Award	2017
NASA and National Geographic FameLab USA Science Communication National Finalist	2014
Elected Membership – Full member of Sigma Xi, The Scientific Research Society	2014
Alberta Citizenship Award	2011
Operation Minerva Mentor Recognition	2010
5 additional awards for communication and research excellence	2001-2011

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### PUBLICATIONS

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**Journal Articles (peer-reviewed)** \*denotes mentees in publications where I played a mentoring role;  
 +denotes corresponding authorship

43	Hogan J*, Fedigan LM, Hiramatsu C, Kawamura S, <b>Melin AD</b> <sup>+</sup> . Florivory reveals detection advantage of small, ephemeral resources to trichromatic New World monkeys. <i>Scientific Reports</i> .	Accepted
42	Kries K*, Barros MAS, Duytschaever G, Orkin JD*, Janiak, M*, Pessoa DMA, <b>Melin AD</b> <sup>+</sup> . Colour vision variation in leaf-nosed bats ( <i>Phyllostomidae</i> ): links to cave roosting and dietary specialization. <i>Molecular Ecology</i> .	Accepted
41	<b>Melin AD</b> <sup>+</sup> , Walco ER*, Chiou K, Kawamura S, Fedigan L. Color vision affects rates of fruit consumption in wild capuchin monkeys ( <i>Cebus capucinus imitator</i> ), especially among juveniles. <i>Proceedings of the National Academy of Sciences</i> . 114:10402-10407.	2017
40	Bergstrom M, Emery Thompson M, <b>Melin AD</b> , Fedigan LM. Using urinary parameters to estimate seasonal variation in the physical condition of female white-faced capuchin monkeys ( <i>Cebus capucinus imitator</i> ). <i>American Journal of Physical Anthropology</i> . 163:707-715.	2017
39	Hiramatsu C, <b>Melin AD</b> , Allen WL, Dubuc C, Higham JP. Experimental evidence that primate trichromacy is well suited for detecting primate social colour signals. <i>Proceedings of the Royal Society B</i> . 284: 20162458.	2017
38	<b>Melin AD</b> <sup>+</sup> , Khetpal V*, Matsushita Y, Zhou K, Campos F, Welker B, Kawamura S. Howler monkey foraging ecology suggests convergent evolution of routine trichromacy as an adaptation for folivory. <i>Ecology and Evolution</i> . 7:1421-1434.	2017
37	Tsutsui K, Otoh M, Sakurai K, Suzuki-Hashido N, Hayakawa T, Misaka T, Ishimaru Y, Aureli F, <b>Melin AD</b> , Kawamura S, Imai H. Variation in ligand responses of the	2016

- bitter taste receptors TAS2R1 and TAS2R4 among New World monkeys. *BMC Evolutionary Biology*. 16:208.
- 36 Hogan JD\*, **Melin AD**, Mosdosy KN\*, Fedigan LM. Seasonal importance of flowers to Costa Rican capuchins (*Cebus capucinus imitator*): implications for plant and primate. *American Journal of Physical Anthropology*. 161: 591-602. **2016**
- 35 Mason VC, Li G, Minx P, Schmitz J, **Melin AD**, Dominy NJ, Springer MS, Wilson RK, Warren WC, Helgen KM, Murphy WJ. Genomic analysis reveals remarkable hidden biodiversity within colugos, and the sister group to primates. *Science Advances*. 10 Aug 2016: 2(8), e1600633. **2016**
- 34 Valenta K, Miller CN, Monckton SK, Styler SA, Jackson DJ, **Melin AD**, Lehman SM, Chapman CA and Lawes MJ. Fruit ripening signals and cues in a Madagascan dry forest: Haptic indicators reliably indicate fruit ripeness to dichromatic lemurs. *Evolutionary Biology*. 43: 344-355. **2016**
- 33 **Melin AD**<sup>+</sup>, Wells K, Moritz GL, Kistler L, Orkin JD, Timm RM, Bernard H, Lakim MB, Perry GH, Kawamura S, Dominy NJ. Euarhontan opsin variation brings new focus to primate origins. *Molecular Biology and Evolution*. 33: 1029-1041. **2016**
- 32 Schoof V, Bonnell T, Jack K, Ziegler T, **Melin AD**, Fedigan L. Male endocrine response to seasonally varying environmental and social factors in a Neotropical primate, *Cebus capucinus*. *American Journal of Physical Anthropology*. 159: 671-682. **2016**
- 31 **Melin AD**<sup>+</sup>, Kline DW, Hiramatsu C, Caro T. Zebra stripes through the eyes of predators, zebras, and humans. *PLoS ONE*. 11: e0145679. **2016**
- 30 Crowley BE, **Melin AD**, Yeakel JD, Dominy NJ. Do oxygen isotope values in collagen reflect the ecology and physiology of Neotropical mammals? *Frontiers in Ecology and Evolution*. 3: 127. **2015**
- 29 Valenta K<sup>+</sup>, Edwards M, Rafaliarison RR, Johnson SE, Holmes SM, Brown KA, Dominy NJ, Lehman SM, Parra EJ, **Melin AD**<sup>+</sup>. Visual ecology of true lemurs suggests a cathemeral origin for the primate cone opsin polymorphism. *Functional Ecology*. doi:10.1111/1365-2435.12575 **2015**
- 28 Valenta K\*, Brown KA, Rafaliarison RR, Styler SA, Jackson DA, Lehman SM, Chapman CA, **Melin AD**. Sensory integration during foraging: the importance of fruit hardness, colour and odour to brown lemurs. *Behavioral Ecology and Sociobiology*. 69: 1855-1865. **2015**
- 27 Valenta K, Brown KA, **Melin AD**, Monckton SK, Styler SA, Jackson DA, Chapman CA. It's Not Easy Being Blue: Are There Olfactory and Visual Trade-Offs in Plant Signaling? *PLoS ONE*. 10: e0131725. **2015**
- 26 Mosdosy K\*, **Melin AD**<sup>+</sup>, Fedigan LM. Quantifying seasonal fallback on invertebrates, pith and bromeliad leaves by white-faced capuchin monkeys (*Cebus capucinus*) in a tropical dry forest. *American Journal of Physical Anthropology*. 158: 67-77. **2015**
- 25 **Melin AD**<sup>+</sup>, Danosi C\*, McCracken G, Dominy NJ. Dichromatic vision in a fruit bat with diurnal proclivities, the Samoan flying fox (*Pteropus samoensis*). *Journal of Comparative Physiology A*. 200: 1015-22. **2014**

- 24 **Melin AD<sup>+</sup>**, Crowley BE, Brown ST, Wheatley PV, Moritz GL, Tuh F, Bernard H, DePaolo DJ, Jacobson AD, Dominy NJ. Calcium and carbon stable isotope ratios as paleodietary indicators. *American Journal of Physical Anthropology* 154: 633-43. **2014**
- 23 **Melin AD<sup>+</sup>**, Young HC, Mosdossy K\*, Fedigan LM. Seasonality, extractive foraging, and the evolution of primate sensorimotor intelligence. *Journal of Human Evolution* 71: 77-86. **2014**
- 22 Moritz GL, **Melin AD**, Tuh F, Bernard H, Ong P, Dominy N. Niche convergence suggests functionality of the nocturnal fovea. *Frontiers in Integrative Neuroscience* 8: 1-12. **2014**
- 21 Campos FA, Bergstrom ML, Childers A, Hogan JD, Jack KM, **Melin AD**, Mosdossy KN, Myers MS, Parr NA, Sargeant E, Schoof VAM, Fedigan LM. Drivers of home range characteristics across spatiotemporal scales in a Neotropical primate, *Cebus capucinus*. *Animal Behaviour*. 91:93-109. **2014**
- 20 Matsumoto Y, Hiramatsu C, Matsushita Y, Ozawa N, Ashino R, Nakata M, Kasagi S, Di Fiore A, Schaffner CM, Aureli F, **Melin AD**, Kawamura S. Evolutionary renovation of L/M opsin polymorphism confers a fruit discrimination advantage to ateline New World monkeys. *Molecular Ecology*. 23: 1799-1812. **2014**
- 19 Fedigan L, **Melin AD**, Addicott J, Kawamura S. The heterozygote superiority hypothesis for polymorphic colour vision is not supported by long-term fitness data from wild Neotropical monkeys. *PLoS ONE*. 9: e84872. **2014**
- 18 Brent LNJ, **Melin, AD**. The Genetic Basis of Primate Behaviour: Genetics and Genomics in Field-Based Primatology. *International Journal of Primatology* 35: 1-10. **2014**
- 17 **Melin AD<sup>+</sup>**, Hiramatsu C, Parr NA\*, Matsushita Y, Kawamura S, Fedigan LM. The behavioural ecology of colour vision: considering fruit conspicuity, detection distance and dietary importance. *International Journal of Primatology* 35: 258–287. **2014**
- 16 Valenta K\*, Burke RJ, Styler SA, Jackson DA, **Melin AD**, Lehman SM. Colour and odor drive fruit selection and seed dispersal by mouse lemurs. *Scientific Reports* 3: 2424. **2013**
- 15 **Melin AD<sup>+</sup>**, Kline D, Hickey CM, Fedigan L. Food search through the eyes of a monkey: a functional substitution approach for assessing the ecology of colour vision. *Vision Research* 86: 87-96. **2013**
- 14 **Melin AD<sup>+</sup>**, Matsushita Y, Moritz G, Dominy NJ, Kawamura S. Inferred M/L cone opsin polymorphism of ancestral tarsiers sheds dim light on the origin of anthropoid primates. *Proceedings of the Royal Society B*. 208 no. 1759. **2013**
- 13 **Melin AD<sup>+</sup>**, Moritz GL, Fosbury RA, Kawamura S, Dominy NJ. Why aye-ayes see blue. *American Journal of Primatology* 74: 185-192. **2012**
- 12 Carnegie S, Fedigan L, **Melin AD**. Reproductive seasonality in female capuchins (*Cebus capucinus*) in Santa Rosa (Área de Conservación Guanacaste), Costa Rica. *International Journal of Primatology* 32: 1076-1090. **2011**

- 11 Parr N\*, **Melin AD**, Fedigan LM. Figs are more than fallback foods: the relationship between *Ficus* and *Cebus* in a tropical dry forest. *International Journal of Zoology* 2011: 1-10. **2011**
- 10 Lynch JW, Matthews L, Boyette A, Macfarlan SJ, Phillips KA, Falotico T, Ottoni E, Verderane M, Izar P, Schulte M, **Melin AD**, Fedigan L, Janson C, Alfaro M. Anointing variation across wild capuchin populations: A review of material preferences, bout frequency and anointing sociality in *Cebus* and *Sapajus*. *American Journal of Primatology* 73: 1-16. **2011**
- 9 **Melin AD**<sup>+</sup>, Fedigan LM, Young HC, Kawamura S. Can colour vision variation explain sex differences in invertebrate foraging by capuchin monkeys? *Current Zoology* 56: 300-312. **2010**
- 8 Hiwatashi T, Okabe Y, Tsutsui T, Hiramatsu C, **Melin AD**, Oota H, Schaffner CM, Aureli F, Fedigan LM, Innan H, Kawamura S. An explicit signature of balancing selection for colour vision variation in New World monkeys. *Molecular Biology and Evolution* 27: 453–464. **2010**
- 7 **Melin AD**<sup>+</sup>, Fedigan LM, Hiramatsu C, Hiwatashi T, Parr N, Kawamura S. Fig foraging by dichromatic and trichromatic white-faced capuchin monkeys in a tropical dry forest. *International Journal of Primatology* 30: 753-775. **2009**
- 6 Hiramatsu C, **Melin AD**, Aureli F, Schaffner CM, Vorobyev M, Kawamura S. Interplay of olfaction and vision in fruit foraging of spider monkeys. *Animal Behaviour*. 77: 1421-1426. **2009**
- 5 Hiramatsu C, **Melin AD**, Aureli F, Schaffner CM, Vorobyev M, Matsumoto Y, Kawamura S. Importance of achromatic contrast in short-range fruit foraging of primates. *PLoS ONE*. 3: 1-12. **2008**
- 4 **Melin AD**<sup>+</sup>, Fedigan LM, Hiramatsu C, Kawamura S. Polymorphic colour vision in white-faced capuchins (*Cebus capucinus*): Is there foraging niche divergence among phenotypes? *Behavioural Ecology and Sociobiology*. 62: 659-670. **2008**
- 3 **Melin AD**<sup>+</sup>, Fedigan L, Hiramatsu C, Sendall C, Kawamura S. Effects of colour vision phenotype on insect capture by a free-ranging population of white-faced capuchins (*Cebus capucinus*). *Animal Behaviour*. 73: 205-214. **2007**
- 2 Bergmann P, **Melin AD**, Russell A. 2006. Differential segmental growth of the vertebral column of the rat (*Rattus norvegicus*). *Zoology*. 109: 54-65. **2006**
- 1 **Melin AD**, Bergmann P, Russell A. 2005. Mammalian postnatal growth estimates: the influence of weaning on the choice of a comparative metric. *Mammalogy*. 86: 1042-1049. **2005**

**Manuscripts in the Pipeline (all peer-reviewed)** \*denotes mentees in publications where I played a mentoring role; <sup>+</sup>denotes corresponding authorship

- 7 Jacobs RL\*, Veilleux CC\*, Louis Jr. EE, Frankel DC, **Melin AD**<sup>+</sup>, Bradley BJ<sup>+</sup>. Variation in colour vision capacity among cathemeral lemurs (*Eulemur*) and the ecology of dichromacy. *Behavioral Ecology*. **In Revision**

- |   |   |                        |
|---|---|------------------------|
| 6 | Orkin JD*, Campos FA, Myers MS, Cheves Hernandez SE, Guadamuz A, <b>Melin AD</b> <sup>+</sup><br>Seasonality of the gut microbiota of free ranging white-faced capuchins in a<br>tropical dry forest. <i>The ISME Journal</i> .   | <b>In<br/>Revision</b> |
| 5 | Nevo O, Valenta K, Razafimandimby D, <b>Melin AD</b> , Ayasse M, Chapman CC.<br>Frugivores and the evolution of fruit colour. <i>Biology Letters</i> .  | <b>Submitted</b>       |
| 4 | Duytschaever G*, Janiak MC*, Ong PS, Wells K, Dominy NJ, Melin AD. Opsin genes of<br>select treeshrews ( <i>Dendrogale murina</i> , <i>Urogale everetti</i> ) resolve ancestral<br>character states within Scandentia. <i>Canadian Journal of Zoology</i> .                         | <b>Submitted</b>       |
| 3 | Buckner JC, Jack KM, Melin AD, Schoof VAM, Gutierrez-Espeleta G, Sorenson L,<br>Lynch Alfaro JW. Variation and selection in MHC Class II DRB, DQA and DQB<br>exons for a wild population of white-faced capuchin monkeys ( <i>Cebus capucinus<br/>imitator</i> ). <i>PLoS ONE</i> . | <b>Submitted</b>       |
| 2 | Solórzano García B, Melin AD, Aureli F, Pérez Ponce de León G<br>Unveiling patterns of genetic variation in parasite-host associations: an example<br>with pinworms and Neotropical primates. <i>Parasitology</i> .   | <b>Submitted</b>       |
| 1 | Solórzano García B, Pérez Ponce de León G, Osorio Sarabia D, Myers MS, <b>Melin AD</b> .<br><i>Physaloptera</i> sp. (Nematoda) in <i>Cebus capucinus imitator</i> from Guanacaste,<br>Costa Rica: natural or accidental infection? <i>Journal of Medical Primatology</i> .          | <b>Submitted</b>       |

**Book Chapters (all peer-reviewed)** \*denotes mentees in publications where AD Melin played a mentoring role; +denotes corresponding authorship

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|---|---|-----------------|
| 8 | <b>Melin AD</b> <sup>+</sup> , Veilleux CC*. Primate senses: finding and evaluating food. IN: <i>Primate<br/>Diet and Nutrition: Needing, Finding, and Using Food</i> . Lambert JE and<br>Rothman JM (eds.), University of Chicago Press, Chicago.  | <b>In Press</b> |
| 7 | <b>Melin AD</b> <sup>+</sup> , Webb S*, Williamson R*, Chiou K. A fresh look at behavioural data<br>collection in primate foraging ecology. In: <i>Primate Life Histories, Sex Roles,<br/>and Adaptability - Essays in Honour of Linda M. Fedigan. Developments in<br/>Primatology: Progress and Prospects</i> . Kalbitzer U, Jack KM (eds) Springer,<br>New York, NY.        | <b>In Press</b> |
| 6 | Hogan J*, <b>Melin AD</b> . Intra- and interannual variation in the fruit diet of wild<br>capuchins: impact of plant phenology. In: <i>Primate Life Histories, Sex Roles,<br/>and Adaptability - Essays in Honour of Linda M. Fedigan. Developments in<br/>Primatology: Progress and Prospects</i> . Kalbitzer U, Jack KM (eds) Springer,<br>New York, NY.                    | <b>In Press</b> |
| 5 | Bergstrom ML, <b>Melin AD</b> , Myers MS, Fedigan LM. Dietary profile, food<br>composition, and nutritional intake of female white-faced capuchins. In:<br><i>Primate Life Histories, Sex Roles, and Adaptability - Essays in Honour of Linda<br/>M. Fedigan. Developments in Primatology: Progress and Prospects</i> . Kalbitzer<br>U, Jack KM (eds) Springer, New York, NY. | <b>In Press</b> |
| 4 | Kawamura S <sup>+</sup> and <b>Melin AD</b> <sup>+</sup> . Evolution of genes for color vision and the chemical<br>senses in primates. IN: Saitou N (ed). <i>Evolution of the Human Genome I: The<br/>Genome and Genes</i> . Springer, Tokyo  | <b>2018</b>     |

- 3 **Melin AD**<sup>†</sup>, Hiramatsu C, Fedigan LM, Schaffner CM, Aureli F, Kawamura S. **2012**  
Polymorphism and adaptation of primate colour vision. IN: *Evolutionary Biology: Mechanisms and Trends*. Pontarotti (ed). Springer, Heidelberg, Germany, p225-241.
- 2 Valenta K, **Melin AD**. Protein limitation explains variation in primate colour vision phenotypes: a unified model for the evolution of primate trichromatic vision. IN *Zoology*, Maria-Dolores Garcia (Ed.), InTech, ISBN: 978-953-51-0360-8. **2012**
- 1 Kawamura S, Hiramatsu C, **Melin AD**, Schaffner CM, Aureli F, Fedigan LM. **2012**  
Polymorphic colour vision in primates: evolutionary considerations. In: *Post Genome Biology of Primates* Hirai H, Imai H, and Go Y. (eds). Springer, Tokyo, Japan: 93-120.

### Other Contributions

- 1 **Melin AD**, Jack K, Fedigan LM, Méndez-Carvajal. Central American White-faced Capuchin (*Cebus imitator*). IN: *All the World's Primates*. N Rowe and M Myers (eds.), Pogonias Press, Charlestown, Rhode Island. **2016**

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### PRESENTATIONS AND SCIENCE COMMUNICATION

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#### Selected Conference Contributions Presented by AD Melin \*denotes mentees

- Melin AD**. Coping with seasonal drought and low food abundance: insights from wild capuchins in a tropical dry forest. **Plenary presentation** for the 41<sup>st</sup> meeting of the American Society of Primatologists, San Antonio, Texas. **2018**
- Melin AD**, Kries K\*, Barros MAS, Duytschaever G, Orkin JD\*, Janiak MC\*, Pessoa D. Diet and roosting behavior shape the color vision of leaf-nosed bats (Phyllostomidae). Society for Molecular Biology and Evolution (SMBE). Yokohama, Japan. **2018**
- Orkin JD\*, Montague M, Doherty A, Magalhaes JP, Warren W, Kawamura S, Marques-Bonet T, **Melin AD**. Genomics of free-ranging white-faced capuchin monkeys (*Cebus capucinus imitator*) XXVII Congress of the International Primatological Society, Nairobi, Kenya. **2018**
- Melin AD**, Kries K, Barros MAS, Duytschaever G, Orkin JD, Pessoa D. Color vision and the ecology of nocturnal mammals: insights from leaf-nosed bats (Phyllostomidae) and primates. Poster presentation at the 87<sup>th</sup> Meeting, American Association of Physical Anthropologists, Austin, Texas. **2018**
- Melin AD**, Duytschaever G\*, Wells K, Ong P, Dominy NJ. Nectar and the genetic basis of ethanol metabolism in Euarchonta. 86<sup>th</sup> Meeting, American Association of Physical Anthropologists, New Orleans, Louisiana. **2017**
- Melin AD**. Hindsight Wasn't 20/20 Nor as Colorful: The Evolution of Primate Vision. American Association for the Advancement of Science (AAAS). Boston, Massachusetts. **2017**
- Kawamura S, Naoi T, Hayashi M, Ashino R, Niimura Y, Touhara K, Veilleux C\*, Garrett E\*, **Melin AD**. Divergent evolution of olfactory and taste receptor repertoire in New World monkeys with diverse color vision types and feeding habits. Society for Molecular Biology and Evolution (SMBE). Austin, Texas. **2017**



- Orkin JD\*, Webb SE\*, **Melin AD**. Three years of sampling the gut microbiota of free-ranging capuchin monkeys (*Cebus capucinus imitator*) in a tropical dry forest. 86<sup>th</sup> Meeting, American Association of Physical Anthropologists, New Orleans, Louisiana. **2017**
- Veilleux CC, Garrett EC, Bankoff RJ, Dominy NJ, Perry NJ, **Melin AD**. Effects of Agricultural Transitions on the Evolution of Human Sensory Systems. 86<sup>th</sup> Meeting, American Association of Physical Anthropologists, New Orleans, Louisiana. **2017**
- Melin AD**, Orkin JD\*, Garrett EC\*, Montague M, Bankoff R, Perry G, Warren W, Kawamura S. Behavioral ecology and sensory genomics of white-faced capuchin monkeys (*Cebus capucinus imitator*) in a comparative context. XXVI Congress of the International Primatological Society, Chicago, Illinois. **2016**
- \*Walco E, Chiou K, Kawamura S, Fedigan L, **Melin AD**. Juvenile foraging efficiency in white-faced capuchins (*Cebus capucinus*): assessing the impact of colour vision. XXVI Congress of the International Primatological Society, Chicago, Illinois. **2016**
- Khetpal V\*, Welker B, Matsushita Y, Kawamura S and **AD Melin**. Howler monkey foraging ecology suggests convergent evolution of routine trichromacy as an adaptation for folivory. 12<sup>th</sup> Annual Midwest Primate Interest Group Conference. St. Louis, Missouri. **2015**
- Melin AD**. Sensory ecology of wild capuchins: integrating fruit signals, nutrition, and foraging behavior. 17<sup>th</sup> Annual Meeting, Society for Evolutionary Studies, Tokyo, Japan. **2015**
- Valenta K, Brown KA, **Melin AD**, Monckton SK, Styler SA, Jackson DA and Chapman CA. Cost-based phylogenetically-controlled analysis of signal tradeoffs in primate-dispersed fruits. Oral presentation at the 84<sup>th</sup> Meeting, American Association of Physical Anthropologists, St. Louis, Missouri. **2015**
- Melin AD**, Shirasu M, Matsushita Y, Myers MS, Bergstrom ML, Venkataraman V, Rothman JM, Fedigan LM, Touhara K, Kawamura S. Examining the links among fruit signals, nutritional value, and the sensory behaviors of wild capuchin monkeys (*Cebus capucinus*). Oral presentation at the 84<sup>th</sup> Meeting, American Association of Physical Anthropologists, St. Louis, Missouri. **2015**
- Melin AD**, Moritz GL, Wells K, Danosi C, Matsushita Y, McCracken G, Kawamura S, Dominy NJ. Activity patterns, diet and the evolution of color vision in “Archonta”. Oral presentation at the 37<sup>th</sup> meeting of the American Society of Primatologists, Decatur, Georgia. **2014**
- Melin AD**, Crowley BE, Moritz GL, Jacobson AD, Dominy NJ. Calcium and carbon stable isotope ratios as paleodietary indicators. Poster presentation at the 83<sup>rd</sup> Meeting, American Association of Physical Anthropologists, Calgary, Alberta. **2014**
- Fedigan LM, Jack K and **Melin AD**. Collaborative long-term data sets and plans for the future: Thirty years of primate research in Costa Rica. Oral presentation at the 83<sup>rd</sup> Meeting, American Association of Physical Anthropologists, Calgary, Alberta. **2014**
- Melin AD**, Moritz GL, Wells K, Kawamura S, and Dominy, NJ. Visual pigments, treeshrews, and the origins of primates. Oral presentation at the XIV Congress of the International Primatological Society, Cancun, Mexico. **2012**
- Melin AD**, Mosdossy K, Young HC, and Fedigan, F. Seasonal variation in capuchin insectivory: Implications for the evolution of sensorimotor intelligence. Oral presentation at the 81<sup>st</sup> Meeting, American Association of Physical Anthropologists, Portland, Oregon. **2012**
- Melin AD**, Fedigan LM, Kline DW, and Kawamura S. Using multidisciplinary techniques to understand the adaptive significance of primate colour vision variation. Oral presentation **2011**

- at the 39<sup>th</sup> Annual Canadian Association of Physical Anthropologists Conference, Montreal, Quebec.
- Moritz GL, **Melin AD**, Fosbury R, Kawamura S, and Dominy NJ. Why aye-ayes see blue. Poster presentation at the 39<sup>th</sup> Annual Canadian Association of Physical Anthropologists Conference, Montreal, Quebec. **2011**
- Melin AD**, Kline DW, Hickey C, and Fedigan LM. Effects of color vision on finding food: insights from simulations of monkey vision. Poster presentation at the "Neuroethology: Behavior, Evolution & Neurobiology" Gordon Research Conference, Easton, Massachusetts. **2011**
- Melin AD**, Fedigan LM, and Parr N. Preference and seasonal use of "colourful" fruit: implications for primate colour vision. Oral presentation at the 6<sup>th</sup> Annual Canadian Society for Ecology and Evolution Conference, Banff, Alberta. **2011**
- Melin AD**, Parr N, Fedigan LM, and Kawamura S. Dietary selectivity by white-faced capuchins: how important are colourful fruits? Oral presentation at the XXIII Congress of the International Primatological Society, Kyoto, Japan. **2010**
- Melin AD**, Fedigan LM, Young H, and Kawamura S. Invertebrate foraging by Costa Rican capuchin monkeys: testing predicted sex differences in relation to colour vision variation. Oral presentation at the 33<sup>rd</sup> Annual Meeting of the American Society of Primatologists, Louisville, Kentucky. **2010**
- Melin AD**, McCabe G, and Fedigan LM. Are colourful fruits more nutritious? Implications for primate colour vision. Oral presentation at the 36<sup>th</sup> Annual Canadian Association of Physical Anthropologists Conference, Hamilton, Ontario. **2008**
- Melin AD**, Fedigan LM, Hiramatsu C, and Kawamura S. Fig foraging by capuchins: considering polymorphic colour vision. Oral presentation at the XXII Congress of the International Primatological Society, Edinburgh, Scotland. **2008**
- Melin AD**, Fedigan L, Hiramatsu C, and Kawamura S. Effects of colour vision phenotype on insect capture by free-ranging white-faced capuchin monkeys (*Cebus capucinus*) in Santa Rosa National Park, Costa Rica. Oral presentation given at the 29<sup>th</sup> Annual Meeting of the American Society of Primatologists, San Antonio, Texas. **2006**
- Melin AD**, Fedigan L, Hiramatsu C, and Kawamura S. Diet, foraging and colour vision: evaluating niche divergence among white-faced capuchins. Oral presentation given at the 34<sup>th</sup> Annual Canadian Association for Physical Anthropology Conference, Peterborough, Ontario. **2006**
- 61 presentations for which I am a co-author (not listed for brevity)* **2003-2018**

#### Invited Lectures (academic)

- Gesellschaft für Primatologie**, Göttingen Germany, Plenary Lecture **2019**
- Rutgers University**, Visiting Speaker in Center for Human Evolutionary Studies **2018**
- University of Michigan**, Visiting Speaker in Biological Anthropology Seminar **2018**
- Duke University, USA**, Visiting Speaker in Evolutionary Anthropology Seminar **2016**
- University of Tokyo, Tokyo, Japan**, Visiting Speaker in Evolutionary Genomics Seminar **2015**
- New York University, New York New York**, Visiting Researcher in Anthropology **2013**
- Washington University in St. Louis**, Anthropology Colloquium Series **2013**
- University of Toronto, Toronto Canada**, Anthropology Colloquium Series **2012**
- University of California at Davis, Davis USA** Visiting Speaker in Primatology Seminar **2012**
- McGill University, Montreal Canada** Visiting Speaker in Anthropology Seminar **2011**

<b>University of Tokyo, Kashiwa Japan</b> Visiting Researcher in Integrated Biosciences	<b>2010</b>
<b>University of Calgary, Calgary Canada</b> Behavioural Neuroscience Research Seminar	<b>2008</b>
<b>American School in Japan, Tokyo Japan</b> Visiting Scientist Presentations (multiple) for elementary, middle and high school students on primate conservation and ecology	<b>2006-2010</b>

### In the News: Popular Media Coverage of Research

New York University. " <a href="#">Detecting social signals may have affected how we see colors.</a> " ScienceDaily. ScienceDaily, 14 June	<b>2017</b>
David Gray. Impacts of drought and famine on the gut microbiome of wild capuchins. Featured on the Eye Opener CBC. May 18.	<b>2017</b>
Melin AD. <a href="#">Living a life in colour helps finding better food.</a> The Science Breaker. July 3.	<b>2017</b>
Johnston, Ian. ' <a href="#">Mismatch' between the way our senses evolved and modern world is making us ill, experts warn.</a> Featured on the Atlantic; one of many stories resulting from the AAAS session I co-organized on "How we came to our senses".	<b>2017</b>
Young E. <a href="#">To Lions, Zebras Are Mostly Gray. So why are they stripey?</a> Featured on TheAtlantic.com. See also <a href="#">the story on CBC news</a> and <a href="#">Eye Opener</a> . January 26.	<b>2016</b>
Lutz D, Mallkowicz T. <a href="#">Hidden Talents of the Colorblind.</a> Animated Short Interview Featured in the Ultra-Condensed Science Series. September 2.	<b>2015</b>
Williams C. <a href="#">Many animals can still see colour in the dead of night.</a> BBC Earth December 1.	<b>2014</b>
Grens K. <a href="#">The Rainbow Connection:</a> Color vision as we know it resulted from one fortuitous genetic event after another. The Scientist. October 1.	<b>2014</b>
Oosthoek S. <a href="#">Bugs may have made us brainy.</a> Science News for Students. July 18.	<b>2014</b>
<a href="#">Insect diet helped early humans build bigger brains: Quest for elusive bugs spurred primate tool use, problem-solving skills.</a> Science Daily. July 1. (Also featured in various other places, including IFL Science)	<b>2014</b>
Everding G. Quest for elusive bugs spurred primate tool use, problem-solving skills. Washington University Newsroom. June 25. <a href="#">Quest for elusive bugs spurred primate tool use, problem-solving skills.</a> June 25	<b>2014</b>
NASA and National Geographic FameLab Science Communication Finalist. <a href="#">Colorblindness – disease or adaptation?</a> February 22. National Finals <a href="#">Studying Color</a>	<b>2014</b>
Keh D. <a href="#">A Functional substitution approach for studying the ecology of primate color vision.</a> Dug Dug. August 31.	<b>2013</b>
Mahony M. <a href="#">The better to see you with.</a> OnEarth. April 30.	<b>2013</b>
Quenqua D. <a href="#">For Early Primates, a Night Filled With Color.</a> New York Times. April 2.	<b>2013</b>
Dartmouth College. <a href="#">Tarsiers' bulging eyes shed light on evolution of human vision.</a> ScienceDaily. March 27.	<b>2013</b>
MacIntosh A. <a href="#">Extant models of early primates and the evolution of color vision.</a> Centre for International Collaboration and Advanced Studies in Primatology Podcast. August 8.	<b>2013</b>
Barone, J. <a href="#">The Upside of Color Blindness.</a> DISCOVER. April 2.	<b>2007</b>
Wayman, E. <a href="#">An Eye for Camouflage.</a> Science NOW. January 9.	<b>2007</b>

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**RESEARCH EXPERIENCE**


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- Primate Genomics and Dietary Ecology Laboratory, PI** **2016-present**  
*Departments of Anthropology and Archaeology & Medical Genetics, University of Calgary*  
 Genetic and genomic research on the sensory systems, dietary adaptations, microbiome, and ecology of wild primates and humans
- Santa Rosa Primate Project, Co-director (with LM Fedigan and K Jack)** **2011-present**  
*Área de Conservación Guanacaste (ÁCG), Costa Rica*  
 Coordination of long-term behavioural, ecological and conservation-oriented research on habituated capuchin monkeys and sympatric mammals
- Human Functional Substitution Model of Animal Vision** **2008-present**  
*Vision and Aging Lab, Department of Psychology, University of Calgary*  
 Design novel ways to evaluate the real-world consequences of colour and spatial vision variation present among mammals with a focus on foraging and predation
- Primate Molecular Ecology Laboratory, PI** **2014-2015**  
*Department of Anthropology, Washington University in St. Louis*  
 Genetic and behavioral research on the visual systems, activity patterns, dietary adaptations, and ecology of primates and other small mammals
- Relationships of Activity Pattern, Diet and Sensory Ecology of Treeshrews** **2011-2015**  
*Danum Valley and Mount Kinabalu, Sabah, Borneo*  
 Integration of genetics, ecology, behaviour and stable isotopes to investigate relationships among sensory phenotypes, diet and activity pattern in diverse mammalian communities spanning trophic levels

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**TEACHING EXPERIENCE**


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**Courses Instructed**

*University of Calgary (as Assistant Professor)*

Medical Sciences 508: Honours research thesis	<b>Fall 2017/Winter 2018</b>
Biology 530: Undergraduate Honours research thesis	<b>Fall 2017/Winter 2018</b>
Archaeology 597: Independent research	<b>Winter 2018</b>
Anthropology 505: Anthropological Genetics	<b>Winter 2018</b>
Anthropology 311: Primate Behaviour	<b>Winter 2017/ Fall 2019</b>
Anthropology 601: Quantitative Methods in Behavioural Ecology	<b>2016 – 2017</b>

*Washington University in St. Louis (as Assistant Professor)*

Anthropology 4911: Methods in Molecular Anthropology (with genetics lab)	<b>Fall 2015</b>
Anthropology 4181: Comparative Methods in Physical Anthropology	<b>Spring 2015</b>
Anthropology 4202: Anthropological Genetics	<b>Fall 2014</b>
Anthropology 3661: Primate Biology	<b>Fall 2014</b>

*Dartmouth College (as Instructor)*

Anthropology 85/87: Undergraduate Independent Research 1/2	<b>Fall 2012/ Spring 2013</b>
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*University of Calgary (as Instructor)*

Anthropology 311: Primate Behaviour	<b>Spring 2011</b>
Anthropology 435: Evolutionary Anthropology	<b>2010-2011</b>
Psychology 505: Special Topics in Colour Vision and Colour Vision Deficiencies	<b>Winter 2009</b>
Anthropology 505: Research Design and Development in Primatology	<b>2007-2008</b>
Anthropology 552: Field Studies in Primatology	<b>Winter 2007</b>

### Teaching Credentials

*University of Calgary*

University Teaching Certificate	<b>2010</b>
Instructional Skills Workshop	<b>2009</b>

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### MENTORING AND OUTREACH

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#### Postdoctoral Fellows and Laboratory Managers Supervised

Gwen Duytchaever, Ph.D. <i>University of Calgary</i> . Laboratory Supervisor.	<b>2016-present</b>
Marieke Janiak, Postdoctoral Scholar. <i>University of Calgary</i> . Adaptive radiation of mammals: the evolutionary genomics of digestive enzymes.	<b>2018-2020</b>
Carrie Veilleux, Postdoctoral Scholar. <i>University of Calgary</i> . Uniting genomics and behaviour to investigate the sensory ecology of touch in wild primates. (Currently a postdoc in biological anthropology at University of North Texas).	<b>2017-2018</b>
Joseph Orkin, Postdoctoral Scholar. <i>University of Calgary/ Washington University in St. Louis</i> . Changing environments, diet, and the gut microbiome of wild capuchin monkeys. (In Sept. 2018 will postdoc in comparative genomics at Universitat Pompeu Fabra, Barcelona, Spain).	<b>2015-2018</b>
Eva Garrett, Postdoctoral Scholar. <i>University of Calgary/ Washington University in St. Louis</i> . Olfaction as an adaptation to hunting and gathering in the rainforest: testing old hypotheses with new approaches (Currently assistant professor, tenure-track, at Boston University, MA, USA)	<b>2015-2017</b>
Mrinalini Watsa, Postdoctoral Scholar. <i>Washington University in St. Louis</i> . Genetic chimeras in callitrichid primates. (Currently a postdoc in biology at University of Missouri, St. Louis)	<b>2013-2015</b>

#### Graduate Research Supervised

Lais Moriera Pacheco, Ph.D. <i>University of Calgary</i> . Sensory ecology and sociosexual signaling in Neotropical primates	<b>2017-present</b>
Shasta Webb, Ph.D. <i>University of Calgary</i> . Microbiome and drought – health outcomes of two species of wild primates living in a seasonal forest	<b>2017-present</b>
Allegra Depasquale, M.A. <i>University of Calgary</i> . Nutritional ecology, feeding divergence and colour vision phenotype in wild capuchin monkeys	<b>2018-present</b>
Swellan Pinto, M.Sc. <i>University of Calgary</i> . Genomic basis of ethanol metabolism in primates and their relatives.	<b>2018-present</b>
Colin MacFarland, M.Sc. <i>University of Calgary</i> . Interactions among gut microbiota and eukaryotic parasites in wild howler monkeys (Co-supervised with Dr. Buret, University of Calgary)	<b>2017-present</b>
Rachel Williamson, M.A. <i>University of Calgary</i> . Foraging niche divergence among Costa Rican white-faced capuchin monkeys	<b>2016-present</b>

Shasta Webb, M.A. <i>University of Calgary/ Washington University in St. Louis.</i> Microbial adaptations to pregnancy and lactation in wild capuchin monkeys	<b>2015-2017</b>
Jeremy Hogan, M.A. <i>University of Calgary.</i> Monkey-flower interactions in a seasonal dry forest (Co-supervised with Dr. Fedigan, University of Calgary)	<b>2012-2014</b>
Currently serving on 6 additional graduate student committees	<b>2014-present</b>

### Undergraduate Research Supervised

David Yang, BSc Honours student. <i>University of Calgary.</i> Population structure of wild howler monkeys inferred from genomic analysis of fecal DNA	<b>2017-present</b>
Jia Tang, BSc Honours student. <i>University of Calgary.</i> Primate DNA enrichment from fecal DNA.	<b>2017-present</b>
Michal Ginzbourg, Undergraduate Assistant. <i>University of Calgary.</i> DNA extraction from primate fecal samples for gut microbiome profiling.	<b>2017</b>
Swellan Pinto, ACHRI Summer Research Intern. <i>University of Calgary.</i> Genomic detection of seasonal parasite load in wild primates	<b>2016-2017</b>
Colin MacFarland, Undergraduate Intern. Genetic monitoring of <i>Giardia</i> infection in wild primate populations.	<b>2016-2017</b>
Emily Walco, <i>Washington University in St. Louis.</i> Color vision and age-related foraging in white-faced capuchin monkeys	<b>2014-2015</b>
Kelly Kries, <i>Washington University in St. Louis.</i> Molecular ecology and evolution of Phyllostomid bats	<b>2014-2015</b>
Cassandra Mitchell <i>Washington University in St. Louis.</i> Chimerism in callitrichid primates (Co-supervised with Dr. Watsa, Washington University)	<b>2014-2015</b>
Anna Villanyi, <i>Washington University in St. Louis.</i> Observer effects on captive primates at the St. Louis Zoo	<b>2014-2015</b>
Christina Danosi, <i>Dartmouth College.</i> Testing the diurnal frugivory hypothesis of primate colour vision in a fruit bat ( <i>Pteropus samoensis</i> ) with diurnal proclivities	<b>2012-2013</b>
Nalisha Kassam, <i>University of Calgary.</i> Effects of natural and simulated human colour vision deficiencies on search time and accuracy	<b>2009-2010</b>
Michael Lemmon, <i>University of Calgary.</i> Establishment and host preference of <i>Ficus</i> trees in a tropical dry forest	<b>2008</b>
Adrienne Blauel, <i>University of Calgary.</i> Predictors of predator alarm calls and responses by capuchin monkeys: evaluating sex, age and colour vision status	<b>2008</b>

### Selected Grants, Awards, and Scholarships to Mentored Students and Post-docs

Vanier Canada Graduate Scholarship (Shasta Webb, Ph.D. Student) (Canada's most prestigious doctoral scholarship)	\$150 000 (CAD)	<b>2018-2022</b>
Eyes High Doctoral Scholarship: Behavioural and physiological responses to diets in a changing landscape (Shasta Webb, Ph.D. Student)	\$120 000 (CAD)	<b>2017-2020</b>
Alberta Children's Hospital Research Institute (ACHRI) Postdoctoral Fellowship (Joseph Orkin, Postdoctoral Scholar)	\$50 000 (CAD)	<b>2016-2018</b>
NSERC Undergraduate Student Research Award (David Yang)	\$6 000 (CAD)	<b>2018</b>

Sigma Xi Research Grant (Colin MacFarland, 2018; Swellan Pinto, Undergraduate Student, 2017; Shasta Webb, Masters Student, 2016; Emily Walco, Undergraduate student 2015)	\$1 000 per student (USD)	<b>2015-2017</b>
Grant Gall Traineeship: Shifts in immunity and gut microbiota during pregnancy and lactation in wild capuchin monkeys (Shasta Webb, Masters Student)	\$40 000 (CAD)	<b>2016-2017</b>
Alberta Innovates Technology Futures: Behavioural and gut microbiome responses to pregnancy in wild capuchin monkeys (Shasta Webb, Masters Student)	\$26 500 (CAD)	<b>2016-2017</b>
The Wenner-Gren Foundation: Olfaction as an adaptation to hunting and gathering in the rainforest: testing old hypotheses with new approaches (Eva Garrett, Postdoctoral Scholar)	\$20 000 (USD)	<b>2015-2017</b>
American Society of Primatologists General Small Research Grant (Cassandra Mitchell, Undergraduate Student, 2015; Shasta Webb, Masters Student, 2016)	\$500 - \$1500 per student (USD)	<b>2015-2016</b>

### Public Outreach

<i>Cybermentor Program</i> , website-based, Mentor A mentoring program, which pairs professional women in science and engineering with young girls, aged 11-18. Involves weekly emails with a mentee about science-related topics as well as her individual interests and career goals. Provides constructive comments, listening and encouragement.		<b>2003-present</b>
<i>Nerd Nite Calgary, Presenter, Wild Rose Brewery, Calgary</i> Gave a lively presentation (20 minutes) for ~70 adults in a fun-yet-intellectual format on my research held at a local brewery.		<b>2018</b>
<i>Shocktober Presenter, Telus Spark Science Center, Calgary, AB</i> Participated in a 2-day exhibit on parasites and human ecology at the Telus Spark Science Centre. Led interactive discoveries and gave presentations of parasite specimens and display models to hundreds of attendees, mostly children and their parents.		<b>2017</b>
<i>WitsOn (Women in Technology Sharing Online)</i> , website-based, Mentor. An online program connects undergraduate students pursuing degrees in science, technology, engineering and medicine (STEM) with female mentors from industry and academia who share experience in issues of particular concern to women. The desired outcome is increased representation of women in STEM areas		<b>2012-2013</b>
<i>Women in Science Program (WISP)</i> , Dartmouth College, Mentor A research internship program, offered to first and second year female students; designed to recruit, retain and engage young women, who are under-represented in science, math and engineering, as active members of the research community		<b>2011-2012</b>
<i>Operation Minerva</i> , Calgary, Canada, Mentor Job-shadowing project to encourage young women (Grade 8) to consider		<b>2010</b>

careers in science, engineering, math and technology and promote their self-confidence

*Girls Field Hockey*, Lord Beaverbrook High School, Calgary, Canada, Head Coach **1999-2003**  
junior girls - teach skill and discipline while emphasizing fun, team work, sportsmanship

## PROFESSIONAL SERVICE

### Departmental Activities

*Represent the Department of Anthropology and Archaeology on the Faculty of Arts Internationalization Committee* **2017 - present**

*Founder and Director of UCalgary Biological Anthropology Writing Group* **2016-present**  
Faculty, postdocs, and graduate students meet weekly for 3 hours to write and discuss current manuscripts/projects in progress

*Founder and Director of Washington University Genetics Group (WUGG)* **2014-2015**  
Faculty, postdocs, lab personnel, graduate and undergraduate students from local universities and The Genome Institute meet bi-monthly to discuss theory, analysis and tools in genetics and genomics with a focus on application to current projects

### Symposia Organized, Sessions Chaired and Other Conference Activities

*Genomic Underpinnings of Primate Phenotypic Evolution and Diversity;* **2018**  
Symposium co-organized with S Kawamura: Society for Molecular Biology and Evolution (SMBE). Yokohama, Japan.

*How We Came to Our Senses: Ecology, Evolution, and the Future of Human Sensation;* **2017**  
Symposium co-organized with N Dominy: American Association for the Advancement of Science (AAAS). Boston, Massachusetts.

*Fueling Integrative Approaches in Primate Sensory Ecology and Genomics;* **2016**  
Symposium co-organized with O Nevo: XXVI Congress of the International Primatological Society, Chicago, USA

*Local Arrangements Committee: 84<sup>th</sup> congress of the American Association of Physical Anthropologists, St. Louis, Missouri, USA;* **2014-2015**  
Duties included website development: [www.aapa2015.com](http://www.aapa2015.com)

*Variation & Evolution of Primate Colour Vision Revealed by Cross-Disciplinary Studies;* **2010**  
Symposium co-organized with S Kawamura: XXIII Congress of the International Primatological Society, Kyoto, Japan

*Ecology and Conservation of Non-human Primates (Session Chair): 33<sup>rd</sup> Annual American Society of Primatologists congress, Louisville, Kentucky, USA* **2010**

*Neotropical Primate Ecology Workshop: Genes, Behaviour and the Senses (Symposium organized);* **2009**  
Departmental symposium with four invited guest speaker in the area of sensory and behavioural ecology, University of Calgary, Canada



**Editorial and Referee Activities (selected)**

<i>Research Committee</i> ; International Primatological Society	<b>2015-2019</b>
<i>Associate Editor</i> ; International Journal of Primatology	<b>2017-present</b>
<i>Review Editor</i> ; Frontiers in Ecology and Evolution	<b>2015-2017</b>
<i>Guest Editor</i> (with L.J.N. Brent); International Journal of Primatology Special Issue on The Genetic Basis of Primate Behaviour	<b>2014</b>

*Manuscript reviews*

American Journal of Primatology, American Naturalist, Animal Behaviour, Behavior Research Methods, Biology Letters, BMC Evolutionary Biology; Chemical Ecology; Evolutionary Anthropology, Evolutionary Biology, Frontiers in Zoology, International Journal of Primatology, Journal of Experimental Zoology, Journal of Human Evolution, Molecular Biology and Evolution, Molecular Ecology, Nature Ecology and Evolution, Nature Scientific Reports, PLoS ONE, Proceedings of the Royal Society of London B	<b>2009-present</b>
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*Funding and Performance reviews (select)*

ENA-Lyon University (France) Performance Review (molecular genetics); Graduate Women in Science grant, International Primatology Society, Leakey Foundation Fieldwork Grant, NSERC Discovery grant, NSF CAREER grant, NSF Program Grant, University of Vienna research platform review.	<b>2009-present</b>
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**Professional Memberships**

American Society of Primatologists (ASP)	<b>2004-present</b>
Animal Behaviour Society (ABS)	<b>2004-present</b>
International Primatological Society (IPS)	<b>2008-present</b>
American Association of Physical Anthropologists (AAPA)	<b>2011-present</b>
American Association for the Advancement of Science (AAAS)	<b>2013-present</b>
American Association of Anthropological Geneticists (AAAG)	<b>2013-present</b>
Sigma Xi	<b>2013-present</b>
Canadian Society for Ecology and Evolution	<b>2016-present</b>
Society for Molecular Biology and Evolution	<b>2018-present</b>

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**LANGUAGES**

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**English:** native language**Spanish:** near fluent; speak, read, write, and translate**French:** rudimentary**Japanese:** rudimentary