# CURRICULUM VITAE ——— GRO V. AMDAM SEPTEMBER 2017

**Academic Address**

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H-index: 38
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**Education**

1997: Bachelor of Science, Conservation Biology, Norwegian University of Life Sciences
1999: Master of Science, Theoretical Regulatory Biology, Norwegian University of Life Sciences
2003: Doctor scientiarum, Theoretical Regulatory Biology, Norwegian University of Life Sciences

**Appointments**

1999- 2000: Lecturer, Gjermundnes Agricultural College, Vikebukt, Norway
2003: Associate professor (term appointment), Department of Animal Science, Norwegian University of Life Sciences
2003- 2005: Visiting researcher, University of California, Davis
2005- 2007: Assistant professor (tenure-track), School of Life Sciences, Arizona State University
2007- 2008: Associate professor-II** (20% term appointment), Department of Animal and Aquacultural Sciences, Norwegian University of Life Sciences
2007- 2012: Associate professor, School of Life Sciences, Arizona State University
2008- 2015: Associate faculty, Group Leader **(20% term appointment), Department of Chemistry, Biotechnology and Food Science, Norwegian University of Life Sciences
2012- present: Professor, School of Life Sciences, Arizona State University
2015- present: Associate faculty, Senior Researcher **(20% term appointment), Faculty of Ecology and Natural Resource Management, Norwegian University of Life Sciences

** My 20% term appointment at the Norwegian University of Life Sciences is not tenured or permanent. The position has been continuously funded by my awards from the Research Council of Norway.

**Honors & Awards**

2004: Wissenschaftskolleg zu Berlin, Institute for Advanced Study, Germany. Invited Guest. Project: Developed new framework for wasp sociality with Fellow Dr. James Hunt. The work was published in Science Magazine: Hunt, H. J. and Amdam, G.V. (2005) Bivoltinism as an antecedent to eusociality in the paper wasp genus Polistes. Science 308: 264-267
2006: Arizona State University. Nominated for the 2007 PEW Scholarship Award. This was the first year ASU was eligible to nominate a junior faculty member to the PEW Charitable Trust's Award in the Biomedical Sciences
2006: Norwegian University of Life Sciences. Nominated for the Excellence in Research Award by the Department of Animal and Aquacultural Sciences
2007: The PEW Charitable Trust. Won the 2007 PEW Scholarship Award in the Biomedical Sciences, $240,000.00. The PEW Charitable Trust selects 15-20 US junior faculty to receive this reward each year
2007: Research Council of Norway. Won the Young Outstanding Researcher Award, given by the YFF Program, $1,600,000.00. Every 5 years, the Research Council selects 20 Norwegian scientists below the age of 45 for this award
2008: Norwegian Parliament, Ministry of Education and Research, Oslo. Plenary Address to the Ministry. Title: "*Future directions – Norwegian research policy in the life sciences*".
2009: Science Magazine. Featured News Focus Article on research by G.V. Amdam and R.E. Page

2010: Wissenschaftskolleg zu Berlin, Institute for Advanced Study, Germany. WIKO Fellowship, January-February 2010. Project: Participated on the workgroup "Social Insects as a Model System for Evolutionary Developmental Biology". $2,900.00

2010: Arizona State University. Speaker at the ASU Last Lecture Series. In recognition of outstanding teaching, I was nominated and chosen by ASU undergraduate students to give one of three "Last Lectures" in 2010

2011: Arizona State University. Won the Faculty Achievement Award in Defining Edge Research: Natural Sciences/Math. This award is given to one or two faculty members each year

2012: Research Council of Norway. Nominated to the Standing Committee of Science Europe. Science Europe is the association of European Research Funding Organizations and Research Performing Organizations, based in Brussels

2012: Norwegian University of Life Sciences: Won the Popular Science Communication Award. The prize is awarded to one faculty member each year. It includes a $9,000 stipend

2012: Morgenbladet (national independent newspaper, Norway): Won the Outstanding Young Scientist Award. The prize was awarded for the first time in 2012. Ten Norwegian scientists were selected by a national academic jury

2013: Verdens Gang (VG, national tabloid newspaper, Norway): Selected as one of Norway's 10 smartest people by a national academic jury

2013: Romsdals Budstikke: (RB, Regional tabloid newspaper, Norway): Nominated as "Person of the year" by the state of Møre og Romsdal (my home state)

2013-2014: Center for Advanced Study (CAS), Norwegian Academy of Science and Letters. Won the Academic Workgroup Award, with the project "Ecology of Food Perception", $600,000.00 (PI). CAS selects 3 winning Workgroup projects each year

2014: Romsdals Budstikke: (RB, Regional tabloid newspaper, Norway): Selected as one of the 100 most important people from Romsdal during the last two centuries 1814-2014

2014: Norwegian Parliament, Ministry of Education and Research, Oslo. Selected to participate at a closed advisory meeting to the Minister, on the topic of Science Education in Norway

2014: Aftenposten (AP, national tabloid newspaper, Norway): Selected by a national jury as one of the 15 most successful Norwegians abroad in Academia

2014: Aftenposten (AP, national tabloid newspaper, Norway): Selected by a national poll as one of the 20 most successful Norwegian abroad in any field (Business, Organizations/Politics, Academia, Culture/Media, Sports)

2014: The City of Molde: Selected as an Ambassador for the City of Molde, in the Region of Romsdal, Norway

2015: Aftenposten (AP, national tabloid newspaper, Norway): Selected for a special feature magazine as one of the 25 most distinguished researchers in Norway

2015: Discovery Magazine: Our finding of a natural route for honey bee vaccination was featured as one of the top 100 scientific discoveries in 2015

2015: Arizona State University: Selected as the one nominee from ASU for the Blavatnik Awards for Young Scientists

2016: Aftenposten Vitenskap (National science magazine, Norway). Featured as one of Norway's top 25 scientists

2016: School of Life Sciences, Arizona State University. Nominated to the American Society of Naturalists' E. O. Wilson Naturalist Award

**Professional Activities & Service**

Academic editor: *PLoS ONE* (2011-2016)

Academic consultant: BeeSpace, University of Illinois Urbana-Champaign (2004-2009)

Grant ad hoc reviewer: US National Science Foundation; BARD, the United States - Israel Binational Agricultural Research & Development Fund; USDA Arthropod and Nematode Biology;

The Marsden Fund New Zealand; Fondation Leenaards, Lausanne, Switzerland; l'Agence Nationale de la Recherche (ANR) France; Research Foundation Flanders (FWO) Belgium; Deutsche Forschungsgemeinschaft (DFG) Germany; Natural Environment Research Council (NERC) United Kingdom; The Netherlands Organisation for Scientific Research (NWO); Canada Foundation for Innovation | Fondation canadienne pour l'innovation; Research Councils UK (RCUK); Swiss National Science Foundation, Division Biology and Medicine; National Science Center, Poland

Grant review board member: American Federation for Aging Research (AFAR) National Scientific Advisory Council (NSAC); EU 7th Framework Program FP7-KBBE-2009; US National Science foundation, Animal Behavior

Manuscript review: *AGE, Aging Cell, Analytical and Bioanalytical Chemistry, Animal Behaviour, Apidologie, Archives of Insect Biochemistry and Physiology, Behavioral Ecology, Behavioral Ecology and Sociobiology, Behavioral Genetics, Behavioral Processes, Biology Letters, BioTechniques, BMC Biology, BMC Biotechnology, BMC Evolutionary Biology; BMC Genomics, Cellular and Molecular Life Sciences; Comparative Biochemistry and Physiology, Current Biology, Environmental Science & Technology, Evolution, Experimental Gerontology, FASEB Journal, FEBS Letters, Genetics, Genome Biology, Heredity, Hormones and Behavior, Insect Biochemistry and Molecular Biology, Insect Molecular Biology, Insectes Sociaux, Insect Science, Journal of Ethology, Journal of Experimental Biology, Journal of Gerontology, Journal of Insect Physiology, Journal of Theoretical Biology, Molecular Biology and Evolution, Molecular Ecology, Nature, Naturwissenschaften, Physiological Entomology, PLoS Biology, Proceedings of the National Academy of Science USA, Proceedings of the Royal Society B, Physiological Entomology, PLoS ONE, Proteomics, Reproductive Biology and Endocrinology, Scientific Reports, The American Naturalist*

Professional memberships: Santa Fe Institute for Complex Studies' Systems Biology & Social Insect Group (2004-2005); Social Insect Research Group Arizona State University (2005- ); Center for Social Dynamics and Complexity at Arizona State University (2005- ); Molecular and Cellular Biology Graduate Program Arizona State University (2008- ); Neuroscience Graduate Program Arizona State University (2012- ); Animal Behavior Graduate Program Arizona State University (2011- ); International Union for the Study of Social Insects (2004- ); NSF-RCN: Insect Genetic Technologies network (2013-)

Scientific advisory board: Genome Canada, Next Generation Bee IPM (2011- 2014)

Steering committee: NSF-RCN: Insect Genetic Technologies network (2013-)

University committees/service: ASU Honey Bee Facility Committee (2006- ): School of Life Sciences Metabolic Biology Faculty Search Committee (2007). School of Life Sciences Research and Training Initiatives Committee (2008- ). SoLS "Ask a Biologist" program (2010-). ASU University Graduate Council, representing the College of Liberal Arts and Sciences (2011-2013). School of Life Sciences Developmental Neurobiology Faculty Search Committee (2012-1213). School of Life Sciences Faculty Leader selection committee chair (2015); Tenure and promotion assessment for the University of Lund, Sweden (2015). School of Life Sciences Evolution and Medicine Faculty Search Committee (2016-2017). Director, ASU Honey Bee Facility (2017- )

**Funding**

***Grants awarded abroad with a US budget allocation and ASU subaccount**

Current Awards

*****2009-2016: Research Council of Norway, award # 191699, $1,240,000.00 – "*The social environment and the epigenome: a global epigenetic study in the first invertebrate model with complete capacity for DNA methylation*". Role: PI

*****2012-2016: Research Council of Norway award #213976, $1,200,000.00 – "*A comparative approach to identifying genes linked to successful cognitive aging*". Role: PI

2013-2016: Norwegian University of Life Sciences, University PhD fellowship, $340,000.00 –

"*Understanding the spread and the persistence of antibiotic resistance genes through the interface hypothesis using honey bees as model*": Role: Co-PI, 20%

2014-2016: NSF-RCN: *Insect Genetic Technologies network*. Role: Steering committee member, and Participant.

2014-2019: NSF Graduate Research Fellowship Program, Graduate student Abigail Finkelstein. Role: Mentor and Committee Chair

2014-2016: Research Council of Norway, award # 238523, $45,000.00 – "*Next generation's food production for a healthy life*". Role: Network participant

2016-2018: USDA NIFA Fellows Award to Postdoctoral Fellow Christopher Mayack. $150,000.00 – "*Fluctuating hemolymph sugar levels as a regulator of honeybee appetite and foraging specialization*". Role: Host and Mentor. Unfortunately, award was declined by the Fellow due to conflict with a current work situation.

2016-2018: Postgraduate Scholarship from the National Science and Engineering Research Council of Canada to Graduate student Gyan Harwood. Role: Mentor and Committee Chair

2017-2021: Research Council of Norway award # 262137, $1,200,000.00 – "*Launching the first vaccination programs for a beneficial, pollinating insect.*". Role: PI

2017-2018: Norwegian Ministry of Agriculture, $65,000.00 – "*Strategies for surveillance and reduction of disease epidemics in honey bees and wild bees in Norway*". Role: WP leader

Pending Proposals

2017: H2020-SFS-48-2017: *BEE ChemicAl Risk Evaluation For Bee HeaLth and Pollination Services*. Role: Sub-WP leader

2017: Vitenskapsraadet. Research Grants Open call 2017 (Natural and Engineering Sciences), Sweden. *Vaccinating honeybees: Using the queen's immune system to protect her progeny against bee viruses*. Role: Collaborator

Previous Awards

2000-2004: Research Council of Norway award #133680/110, $390,000.00 – "*Regulatory anatomy of honey bee lifespan*". Personal Dr. fellowship, supervised by Dr. Stig W. Omholt

2003-2005: Research Council of Norway award #157851/432, $270,000.00 – "*Application of RNA interference technology for understanding somatic maintenance functions in the honeybee (Apis mellifera)*". Role: PI

2003-2006: Research Council of Norway award #147085/i10, $310,000.00 – "*Visualization of vitellogenin dynamics and associated physiology in the honey bee (Apis mellifera)*". Role: PI

2004: Research Council of Norway award #157851/V40, $25,000.00 – USA overseas research fellowship. Role: PI

2006-2008: Research Council of Norway award #171958, $315,000.00 – "*Dissecting the physiological, sensory, cognitive, and social dynamic features of cellular aging in the honey bee worker brain*". Role: PI

2006-2009: National Science Foundation award #0615502, $365,000.00 – "*Genetic dissection of the reproductive ground-plan hypothesis of social evolution*". Role: Co-PI, 60%

2007-2011: The PEW Charitable Trust award # 2006-000116, $240,000.00 – "*Dissecting the unique plasticity of neuronal oxidative damage in aging honey bee (Apis mellifera) brain*". Role: PI

*****2007-2010: Research Council of Norway award #175413, $1,200,000.00 – "A study of aging in the honey bee brain". Role: PI

2007-2010: Norwegian University of Life Sciences, University PhD fellowship, $320,000.00 – "*Sensory sensitivity, susceptibility and aging*". Role: PI

*****2007-2011: Research Council of Norway award #180504, $1,600,000.00 – "*Genetic dissection of the reproductive ground-plan hypothesis of social evolution: Young Outstanding*

*Researchers Program (YFF)*". Role: PI

2008-2011: Research Council of Norway award #185306, $750,000.00 – "*Dissecting molecular properties of honey bee vitellogenin (Vg): a protein at the intersection between social behavior and aging*". Role: PI

2009: National Science Foundation award #0910330, $13,300.00 – "*Dissertation Research: The Regulation of Social Foraging in the Honey Bee (Apis mellifera)*". Role: PI. This award was a DDIG Fellowship to graduate student Kate Ihle

2010: National Science Foundation award # EF-0905608.; $30,000.00 – "*NESCent Catalysis Meeting, Evolution of Insect Sociality: An Integrative Modeling Approach*". Role: Faculty participant and contributor to the application (PI Dr. James Hunt)

2008-2012: United States - Israel Binational Science Foundation award #2007465, $180,000.00 – "*Insulin and size-related division of labor in Bombus*". Role: USA PI. Dr. Guy Bloch, Hebrew University of Jerusalem is PI for the Israeli division of the project

2009-2011 + 1 year extension: National Institute of Health award #01AG022500-07, $575,000.00 – "*Biodemography of Aging*". Role: Co-PI, 50%

2010-2012: Smithsonian Tropical Research Institute/Arizona State University: $150,000.00 – "*Evolution of social phenotypes from reproductive characteristics of solitary ancestors*". Role: Co-PI, 30%. Postdoctoral fellowship to Dr. Kate E. Ihle

2011-2012: Research Council of Norway award #180504-S; $51,500.00 – "Training, strategies, and perspectives to advance RNA interference technology in honey bees". Role: PI

2009-2013: EU FP7 award #FP7-PEOPLE-ITN-2008-238665. This award is a Marie Curie International Training Network funded by a European Commission subcontract with Role: Co-PI and a supplementary award from the Research Council of Norway with Role: PI. My total budget allocation, $360,000.00 – Network Name: "*Neuroendocrine Immune Networks in Ageing* (NINA)". Head of NINA is Dr. Janet Lord, University of Birmingham, UK

2011-2014: Research Council of Norway award #216776/F11 Leiv Eriksson mobility program, International Scholarship Selection, $40,000.00 – "*Improving the tool kit for honey bee (Apis mellifera) functional genetics: improved understanding of the RNAi response*". Role: PI. Mobility grant to Dr. Kate E. Ihle

2011-2014: Norwegian University of Life Sciences TVERRforsk stipend to interdisciplinary research, $34,000.00 – "*Determinants of the gut microbiota composition using honey bees as a model*". Role: Co-PI, 30%

2012-2014: Norwegian University of Life Sciences University Postdoctoral fellowship, $296,000.00 – "*Food Ecology*" Role: PI

2012-2014: USDA-NIFA, $75,000.00 – "*Decoding a pheromone signal: how brood pheromone stimulates honey bee pollen foraging & colony health*". Role: Senior key person (project mentor). Career development fellowship to PhD candidate Kirsten Traynor

2013-2014: Center for Advanced Study (CAS), Norwegian Academy of Science and Letters Workgroup award, $600,000.00 – "*Ecology of Food Perception*". Role: Co-PI, 50%

2014-2015: Sponsored research, Norgesgruppen (this is the largest commercial food retailer in Norway) $17,000 – "*Genetic markers of eating behavior in parents*": Role: Co-PI, 30%

2010-2015: Norwegian University of Life Sciences, University PhD fellowship, $320,000.00 – "*Lactobacillus: characterization, development and implementation as delivery vehicle in honeybee functional genomic research*": Role: Co-PI, 50%

2012-2015: Norwegian University of Life Sciences, University PhD fellowship, $320,000.00 – "*Colon microorganisms' contribution to fiber inducible satiety*": Role: Co-PI, 20%

**Student/Postdoc Grants, Awards & Honors**

† **Graduate student; ‡ Postdoctoral fellow**

2006: Kate E. Ihle†, 2nd prize in congress poster competition, Congress of the International Union for the Study of Social Insects, Washington D.C., USA

2006: Kate E. Ihle†, 2nd prize in the students' presentation competition, President's Prize, Entomological Society of America, Indianapolis, USA

2006-2008: Florian Wolschin‡, Feodor Lynen postdoctoral fellowship award. Sponsor: Humboldt Foundation, Germany.

2008: Kate E. Ihle†, Selected Junior Scientist Presentation, Gordon Research Conference "*Genes and Behavior*", Lucca, Italy

2008-2011: Siri-Christine Seehuus‡, Grant Award, Research Council of Norway

2008: Navdeep Mutti‡, Selected Lecture, Keystone Symposia "*Metabolic Pathways and Longevity*", Copper Mountain, Colorado, USA

2008: Brenda Rascon†, Howard Hughes Medical Institute, conference scholarship to HHMI Janelia Farm, USA

2008: Adam Dolezal†, Research Grant Award from the ASU Graduate and Professional Student Association

2008: Navdeep Mutti‡, PiRLS Postdoctoral Award from the Research Initiatives and Training Program, School of Life Sciences, ASU

2009: Kate E. Ihle†, Doctor Dissertation Improvement award #0910330. Sponsor: National Science Foundation

2010-2011: Kate E. Ihle‡, Smithsonian Tropical Research Institute/ASU, postdoctoral fellowship

2010: Heli Havukainen†, 1st prize – poster competition, FEBS Advanced Methods in Protein Crystallization, Academic University Center at Nové Hrady, Czech Republic

2010: Brenda Rascon†, 1st prize – poster competition, Congress of the International Union for the Study of Social Insects, Copenhagen. DK

2010: Kirsten Traynor†, popular science writing printed by *Scientific American Mind*. Also available online: http://www.scientificamerican.com/article.cfm?id=old-and-wise

2011-2012: Kirsten Traynor†, Fulbright Scholarship. Sponsor: Fulbright Program, U.S. Department of State's Bureau of Educational and Cultural Affairs

2011: Kate E. Ihle‡, Leiv Eriksson mobility award 2012. Sponsor: Research Council of Norway

2012: Adam Dolezal†, the *Journal of Experimental Biology* Travel Award for Research

2012: Ryan Forster, Graduate Research Fellowship Program (GRFP) Fellowship. Sponsor: National Science Foundation

2012: Kirsten Traynor, 2012-2014: NIFA Fellowship, Agriculture and Food Research Initiative. Sponsor: National Institute of Food and Agriculture, U.S. Department of Agriculture

2013: Heli Havukainen, 2013-2016: Grant award, Academy of Finland and the University of Helsinki. "Establishing the role of vitellogenin in honeybee immunity, inflammation and coagulation". (416,000 EUR)

2013: Heli Havukainen, 2014-2016: Grant award, Norwegian Research Council and Norwegian University of Life Sciences. "*Large lipid transfer protein signaling as a mechanism of aging*". ($740,000.00). *Havukainen declined the award due to family reasons*

2013: Marije Oostindjer, 2014-2016: Grant award, European Commission. ERA-SUSFOOD network proposal "*Consumers in a sustainable food supply chain: understanding barriers and facilitators for acceptance of visually suboptimal foods*" (1,700,000.00 EUR)

2014: NSF Graduate Research Fellowship Program, Graduate student Abigail Finkelstein

($96,000.00)

2015: USDA NIFA Fellows Award to Postdoctoral Fellow Christopher Mayack. ($150,000.00)

2016-2018: Postgraduate Scholarship from the National Science and Engineering Research Council of Canada to Graduate student Gyan Harwood ($CA 42,000.00)

2016-2018: BARD Postdoctoral Fellowship to Postdoc Margarita Orlova ($90,000.00)"*Fertility and its signs – elucidating the link between reproduction and pheromonal gland function in the honeybee."*

**Teaching & Mentoring**

Courses Taught

*Gjermundnes Agricultural College, Vikebukt, Norway:*

- Conservation Biology, courses VKI and VKII (with lab and field sessions), 1999F
- General Biology (with lab), 1999F

*Norwegian University of Life Sciences*

- Computational Population Dynamics HFX220 (with computer lab), 2000F
- Social Insect Biology HFX208 (with lab and field sessions), 2003 Sum.I, Sum.II
- Individualized training course in grant proposal writing, 2017

*Arizona State University*

- Animal Physiology BIO360, 2006S, 2007S, 2008S, 2009S, 2009F, 2010S, 2010F, 2012S, 2012F, 2013S, 2016S, 2017S
- Animal Physiology laboratory BIO361, 2008S, 2009S, 2009F, 2010S, 2010F, 2012S, 2012F, 2013S, 2016S, 2017S
- General Genetics BIO340, 2008F, 2011S, 2014F, 2015F
- Genetics and Genomics of Behavior BIO494/598 2015S, 2017F
- Statistics/Survival Analysis BIO 590/790, 2007F
- Advanced Molecular & Cellular Biology II MCB 556, 2009S (contributed lecture)
- Life Sciences Career Paths BIO189 2009F (contributed lecture)
- Professional Values in Science BIO416 (contributed lecture)
- Research Topics in Evolution BIO610 2012F (contributed lecture and discussion group)
- Graduate research BIO792, ongoing (see list of master and Ph.D. students, below)

*Television*

- PBS SciGirls, Season 2. Episode 8: Bee Heaven: http://scigirlsconnect.org/page/season-2
- COX7, STEM Journals, Arizona, Social Insects: http://www.cox7.com/stem-journals/social-insects with graduate student Jonathan Bobek

Undergraduate Participation

- The Amdam laboratory offers undergraduate internships for course codes MBB484, MBB499, BIO492 and BIO495 at ASU, and under Section 10: Independent Study (400 level) at the Norwegian University of Life Sciences. Number of graduating interns 2006-2016 = **61**
- Honor thesis director: Jacob Seemann (2014-2015), Samantha Baker (2015-2016), Emma Crable (2016-2017), Aamir Patel (2017-2018), Emily Tiedemann (2017-2018).
- Honors thesis committee member: Katherine Skerry (2017-2018)

Master Students

**Graduate student pursued ^academic career or #research staff position after graduation**

2001-2002: Anne L.T.O. Aase^. Topic: *in vivo* rearing of honey bee larval gene knockdowns, co-advisor with Dr. Stig W. Omholt. Subsequent employment: Ph.D. student, Norwegian University of Life Sciences

2006-2008: Kari-Anne Nilsen. Topic: honey bee endocrine physiology. Subsequent employment: Head of section, Ytste Skotet Museum, Farm and Outdoor Pursuits Center, Norway

2007-2009: Bente Smedal#. Topic: histology of honey bee aging. Subsequent employment:

Research technician, Norwegian University of Life Sciences.

2007-2010: Nicholas Baker[#]. Topic: plasticity of honey bee brain aging. Current occupation: Beekeeper and owner of Baker's Bees LLC.

2010-2011: Mari Hoiland. Topic: honey bee discriminant behavior. Subsequent employment: Rotational farm manager, Vestby municipality, Norway

2010-2012: Eva Hystad[^]. Topic: brain mitochondrial DNA damage and honey bee learning ability, co-advisor with Dr. Lars Eide. Subsequent employment: Ph.D. student, Norwegian University of Life Sciences

2011-2012: Gunhild Dalen. Topic: the honey bee as a model for systems integrity, co-advisor with Dr. Daniel Münch. Subsequent role: Homemaker, Norway

2012: Marina Yusaf. Topic: effects of caffeine lifespan and learning in old age, co-advisor with Dr. Daniel Münch. Subsequent employment: Lecturer, Osloby Steinerskole, Norway

2011-2013: Lars Heidem. Topic: lipofuscin: accumulation, damage and plasticity in aging brains, co-advisor with Dr. Daniel Münch. Current occupation: Instructor, Oslo Private Gymnasium

2011-2017: Jonathan Bobek. Topic: Strategies of color consistency vs. floral switching in honey bee foragers. Subsequent employment: Instructor

2015-present: Neil Hillis. Topic: role of physiology in risk assessment in honey bee foragers. Status: ongoing, ASU.

Ph.D. Students

2003-2006: Siri-Christine Seehuus[^]. Topic: honey bee aging. Current occupation: Assistant professor, Hedemark University of Applied Sciences, Norway

2005-2010: Kate E. Ihle[^]. Topic: genetic regulation of honey bee social behavior, co-advisor with Dr. Robert E. Page. Current occupation: Postdoctoral fellow, University of Zurich

2006-2012: Adam Dolezal[^]. Topic: physiology of social behavior in ants, co-advisor with Dr. Bert Hölldobler. Current occupation, Assistant Professor, University of Illinois

2007-2009: Martin Speth[^]. Topic: honey bee sensory sensitivity, physiological resilience and aging, transferred to the University of Oslo's Ph.D. program. Current occupation: Ph.D. student, University of Oslo, Norway

2008-2011: Heli Havukainen[^]. Topic: the structure of honey bee vitellogenin, co-advisor with Dr. Øyvind Halskau. Current occupation: Postdoctoral fellow and PI, University of Helsinki

2008-2013: Brenda Rascon. Topic: the metabolic biology of honey bee aging. Current occupation: Medical chemistry, drug design and development, Sandoz GmbH, Tirol Austria

2009-2014: Kirsten Traynor[^]. Topic: interplay of pheromones and organ systems in regulation of honey bee behavior. Co-mentored with Dr. Robert E. Page until 2013. Current occupation: Postdoctoral fellow, University of Maryland.

2010-2014: Ashish Shah[^]. Topic: the metabolic biology of the honey bee brain, co-advisor with Dr. Daniel Münch. Current occupation: Team coordinator, Bioinnovatives Inc. India

2010-2014: Anbjørg Rangberg. Topic: use of lactic acid bacterial vectors to achieve honey bee paratransgenesis, co-advisor with Dr. Dzung Diep. Current occupation: Laboratory technician, Østfold Hospital, Norway

2011-2015: Christina Scholl[^]. Topic: neurobiology and structural anatomy of honey bee foraging behavior, thesis committee member, Chair: Prof. Dr. Wolfgang Rössler. Current occupation: Postdoctoral fellow, University of Würzburg, Germany.

2009-2016: Christina Burden. Topic: epigenetics of honey bee olfactory learning, co-advisor with Dr. Brian Smith: Current occupation: Assistant professor, Union College, Lincoln.

2012-2016: Qing Wang[^]. Topic: food ecology, co-advisor with Drs. Bjørg Egelandsdal and Marije Oostindjer. Current occupation: Research aid, Norwegian University of Life Sciences.

2011-present: Erik Rasmussen. Topic: roles of methylation vs. 5-hydroxymethylation in honey bee epigenetic regulation, co-advisor with Dr. Daniel Münch. Norwegian University of Life Sciences Status: Graduating 2017

2012-present: Eva Hystad. Topic: genes underlying successful aging in bees and humans, co-advisor with Dr. Daniel Münch. Status: Graduating 2018

2013-present: Abigail Finkelstein. Topic: individuality, variation, learning. Status: ongoing, ASU

2013-present: Jane Ludvigsen. Topic: antibiotic resistance in gut bacteria, co-advisor with Dr. Knut Rudi. Status: ongoing, Norwegian University of Life Sciences

2014-present: Gyan Harwood. Topic: role of the vitellogenin protein in trans-generational immune priming and transcriptional regulation: Status: ongoing, ASU

2015-present: Tyler Quigley. Topic: Brain transport of Vitellogenin. Status: ongoing, ASU

2017-present: Sebastian Scofield. Topic: TBD. Status: Ongoing ASU

2017-present: Madeline Ostwald. Topic: TBD. Status: Ongoing ASU

Postdoctoral Fellows

**Former senior fellow is currently in ¶academia, ⊥private or legislative research**

2006-2008: Siri-Christine Seehuus¶. Topic: role of vitellogenin in honey bee aging. Current occupation: Assistant professor, Hedemark University of Applied Sciences, Norway

2006-2008: Florian Wolschin⊥. Topic: proteomics of honey bee behavior. Current occupation: Laboratory Head, Sandoz GmbH, Tirol Austria

2006-2009: Navdeep Mutti⊥. Topic: genetic regulation of honey bee caste development. Current occupation: Research scientist, DuPont Experimental Station, Wilmington

2007-2010: Daniel Münch¶. Topic: honey bee brain aging, Current occupation: Senior researcher, Norwegian University of Life Sciences

2007-2010: Christina Tolfsen⊥, on proteomics of honey bee brain aging. Current occupation: Senior advisor, Climate and Pollution Agency, Norway

2007-2011: Ying Wang¶. Topic: genetic regulation of honey bee social behavior, co-advisor with Dr. Robert E. Page. Current occupation: Assistant research professor, ASU

2010-2012: Kevin Flores¶. Topics: bioinformatics of DNA methylation. Current occupation: Assistant Professor, North Carolina State University, Raleigh

2010-2013: Kate E. Ihle¶. Topic: evolution of social insect behavior, co-advisor with Drs. May Jane West-Eberhard and William Wcislo, Smithsonian Tropical Research Institute, Panama. Current occupation: Postdoctoral fellow, University of Zurich

2012-2013: Heli Havukainen¶. Topic: Vitellogenin structural biochemistry. Current occupation: Postdoctoral fellow and PI, University of Helsinki.

2012-2014: Marije Oostindjer¶. Topic: food ecology, co-advisor with Dr. Bjørg Egelandsdal. Current occupation: Senior researcher and PI, Norwegian University of Life Sciences

2016-present: Margarita Orlova: Topic: Link between reproduction and pheromonal gland function in the honey bee.

Assistant Research Professors/Senior Researchers

2008-2011: Florian Wolschin⊥. Topic: Proteomics of honey bee behavior and aging. Current occupation: Laboratory Head, Sandoz GmbH, Tirol Austria

2009: Øyvind Halskau¶. Topic: structure of honey bee Vitellogenin. Current title: Professor, University of Bergen, Norway

2010-2015: Daniel Münch. Topic: Foods with no backbone. Current occupation: Senior researcher, Norwegian University of Life Sciences

Professional Staff

2006-2008: Paula Mehta B.S., Research technician. Current occupation: Homemaker, USA

2008: Avani Patel B.S., Research technician. Current occupation: Research specialist, Biodesign Institute, ASU

2008: Brenda Rascon M.S., Research technician. Current occupation: Medical chemistry, drug development, Sandoz GmbH, Tirol Austria

2008-2010: Erin Fennern B.A., Research technician. Current occupation: MD, Mount Sinai Hospital, New York

2009-2010: Bente Smedal, M.S. Research engineer. Next: Research technician, Norwegian University of Life Sciences

2011-2012: Rachel Prestwich, B.S. Research technician. Current occupation: Emergency Medical Technician (EMT) at PMT Ambulance- Rural Metro Company, Mesa AZ

2011- 2012: Ying Wang, Ph.D. Research scientist. Current occupation: Associate Research Professor, ASU

2010-2013: Nicholas Baker, M.S. Research specialist, ASU. Current occupation: Beekeeper, owner of Baker's Bees LLC.

2014-2015: Eugen Pohoata, B.S. Research technician.

2009- present: Claus Kreibich, B.S. Research engineer, Norwegian University of Life Sciences

**Published Work**
Photos & Cover illustrations

1. Cover image, *Science* Magazine's SAGE KE Vol. 2004, issue 5
2. Cover image, *Science* Magazine's SAGE KE Vol. 2004, issue 26
3. Cover illustration, *Nature*, Vol. 439, issue 5, January 2006
4. Editors choice *Proceedings of the National Academy of Science USA*, no. 4, January 2006
5. Editors choice *PLoS Biology*, no 5, March 2007
6. Cover illustration, *Naturwissenschaften*, no 94, April 2007
7. Cover illustration, *BioEssays*, no 29, April 2007
8. Editors choice *Proceedings of the National Academy of Science USA*, Vol. 104, August 2007
9. Cover illustration, *Functional Ecology*, Vol. 22, no 3, 2008
10. Cover illustration, Ch.4 *The Superorganism* B. Hölldobler & E.O. Wilson, W.W. Norton, 2008
11. Cover illustration, *Journal of Experimental Biology*, Vol. 212, issue 7, January 2009
12. Cover illustration, *Genetics*, Vol. 183, issue 2, October 2009
13. Featured News Focus photos and illustration, *Science Magazine*, Vol. 236, October 2009
14. Editors choice *Journal of Experimental Biology*, Vol. 212, issue 23, December 2009
15. Feature cover image, *PLoS Genetics*, Vol 6, issue 4, April 2010
16. Featured image, *Science News*, In the News section, Vol.177, issue 9, April 2010
17. Cover illustration, *Evolution & Development*, Vol. 12 September/October 2010
18. Cover illustration, *Aging Cell*, Vol. 10 February 2011
19. Cover illustration, *Journal of Experimental Biology*. Vol. 214 February 2011
20. Cover illustration, *Journal of Experimental Biology*. Vol. 214 April 2011
21. Cover illustration, concept drawing w. Brenda Rascon for the book *Molecular Mechanisms of Life History Evolution*. Eds. Flatt, T. & Heyland, A., Oxford University Press, NY, 2011
22. Cover illustration, Comparative and Integrative Biology, Vol. 52, issue 1, July 2012
23. Feature cover image, *PLoS Genetics*, Vol 8, issue 6, June 2012
24. A-1 front page photo, *Arizona Republic*, July 3rd, 2012
25. Editors choice *Journal of Experimental Biology*, Vol. 216, issue 9, May 2013
26. Cover illustration, *Journal of Heredity*, March/April, 2015.

27: Cover illustration, *Experimental Gerontology*, Aging in the wild, December 2015

Articles

Markup: Students who worked in the Amdam research program are designated as follows: Undergraduate student* = 1x underline; Graduate student† = 2x underline. Postdoctoral fellows and research staff funded by my grants: dotted underline. Publications involving international research collaborations are indicated with superscript [i]. Order of authorship: Students are first authors provided that they carried out the majority of the experiments and largely wrote the manuscript. The mentor/senior author/s is listed last. The 'sandwiched' authors are sorted in descending order based on practical and intellectual contributions to designing and performing experiments, analyzing samples or data, and to developing the publications.

119: Hystad EM, Salmela H, Amdam, GV, Munch D (2017) Hemocyte-mediated phagocytosis differs between honey bee (*Apis mellifera*) worker castes. *PLoS ONE* 12(9): e0184108

118. Traynor KS, Wang Y, Brent C, **Amdam GV**, Page RE (2017) Young and old honey bee (*Apis mellifera)* larvae differentially prime the developmental maturation of their caregivers. *Animal Behavior,* 124, 193-202

117. Rasmussen EM, Vågbø CB, Münch D, Krokan HE, Klungland A, Amdam GV, Dahl JA (2016). DNA base modifications in honey bee and fruit fly genomes suggest an active demethylation machinery with species- and tissue-specific turnover rates. *Biochemistry and Biophysics Reports*. 6: 9–15

116[i]. Oostindjer M, Aschemann-Witzel J, Wang Q, Skuland SE, Egelandsdal B, **Amdam GV**, Schjøll A, Pachucki MC, Rozin P, Stein J, Lengard Almli V, van Kleef E. (2016). Are school meals a viable and sustainable tool to improve the healthiness and sustainability of children´s diet and food consumption? A cross-national comparative perspective. *Critical Reviews in Food Science and Nutrition.* DOI: 10.1080/10408398.2016.1197180 Epub ahead of print.
**Role: Collaborator.** (This paper was conceived during my sabbatical year at the Center for Advanced Study (CAS), Norwegian Academy of Science and Letters, with the project "Ecology of Food Perception". I was awarded the project because of my work on associations between honey bee physiology and food perception)

115. Wang Q†, Egelandsdal B, **Amdam GV**, Almli VL, Oostindjer M. (2016) Diet and Physical Activity Apps: Perceived Effectiveness by App Users. *JMIR Mobile and Ubiquitous Health.* 4(2):e33. doi: 10.2196/mhealth.5114.
**Role: Co-senior investigator and mentor.** (This paper was conceived during my sabbatical year at the Center for Advanced Study (CAS), Norwegian Academy of Science and Letters, with the project "Ecology of Food Perception". I was awarded the project because of my work on associations between honey bee reproductive physiology and food perception)

114. Wang Y, Campbell JB, Kaftanoglu O, Page RE Jr, **Amdam GV**, Harrison JF. (2016) Larval starvation improves metabolic response to adult starvation in honey bees (*Apis mellifera L.*). *Journal of Experimental Biology* 219(Pt 7):960-8. doi: 10.1242/jeb.136374. Ediotrial feature
**Role: Collaborator**

113. Wang Y, Kaftanoglu O, Brent CS, Page RE Jr, Amdam GV. (2016) Starvation stress during larval development facilitates an adaptive response in adult worker honey bees (*Apis mellifera L.*). *Journal of Experimental Biology* 219(Pt 7):949-59. doi: 10.1242/jeb.130435.
**Role: Senior investigator**

112. Wang Q†, Oostindjer M, **Amdam GV**, Egelandsdal B. (2016) Snacks With Nutrition Labels: Tastiness Perception, Healthiness Perception, and Willingness to Pay by Norwegian Adolescents. *Journal of Nutrition Education Behavior*. 48(2):104-11.e1
**Role: Co-senior investigator and mentor.** (This paper was conceived during my sabbatical year at the Center for Advanced Study (CAS), Norwegian Academy of Science and Letters, with the project "Ecology of Food Perception". I was awarded the project because of my work on associations between honey bee physiology and food perception)

111. **Amdam, GV** (2015) Hive's logic of life. *Cell*, 163: 19

110. Galbraith DA, Wang Y, **Amdam GV**, Page RE, Grozinger CM (2015). Reproductive physiology mediates honey bee (*Apis mellifera*) worker responses to social cues. *Behavioral Ecology and Sociobiology* 69 (9) 1511-1518
**Role: Collaborator.**

109. Ludvigsen J†, Rangberg A†, Avershina E, Sekelja M, Kreibich C, **Amdam GV**, Rudi K. Shifts in the Midgut/Pyloric Microbiota Composition within a Honey Bee Apiary throughout a Season (2015). *Microbes and Environments* 30 (3) 235-244.
**Role: Co-senior investigator and mentor.**

108[i]. De Souza DA, Wang Y, Kaftanoglu O, De Jong D, **Amdam GV**, Gonçalves LS, Francoy TM.(2015) Morphometric Identification of Queens, Workers and Intermediates in In Vitro Reared Honey Bees (*Apis mellifera*). *PLoS ONE* 10(4):e0123663.
**Role: Collaborator**

107*i*. Münch D, Ihle KE, Salmela H, **Amdam GV.** (2015) Vitellogenin in the honey bee brain: atypical localization of a reproductive protein that promotes longevity. *Experimental Gerontology* doi: 10.1016/j.exger.2015.08.001. [Epub ahead of print].
**Role: Senior investigator and mentor.**

106[i]. Salmela H, **Amdam GV**, Freitak D. (2015) Transfer of Immunity from Mother to Offspring Is Mediated via Egg-Yolk Protein Vitellogenin. *PLoS Pathogens* 11(7):e1005015. doi: 10.1371/journal.ppat.1005015.
**Role: Mentor and collaborator.**

105[i]. Sadd BM, Barribeau SM, Bloch G, de Graaf DC, Dearden P, Elsik CG, Gadau J, Grimmelikhuijzen CJ, Hasselmann M, Lozier JD, Robertson HM, Smagghe G, Stolle E, Van Vaerenbergh M, Waterhouse RM, Bornberg-Bauer E, Klasberg S, Bennett AK, Câmara F, Guigó R, Hoff K, Mariotti M, Munoz-Torres M, Murphy T, Santesmasses D, **Amdam GV**, et al. (2015) The genomes of two key bumblebee species with primitive eusocial organization. *Genome Biology* 16(1):76. doi: 10.1186/s13059-015-0623-3.
**Role: Collaborator.**

104. Speth MT†, Kreibich CD, **Amdam GV**, Münch D. (2015) Aging- and task-related resilience decline is linked to food responsiveness in highly social honey bees. *Expimental Gerontology*, 11;65:46-52
**Role: Co-senior investigator and mentor.**

103. Rasmussen EM†, **Amdam GV** (2015) Cytosine modifications in the honey bee (*Apis mellifera*) worker genome. *Frontiers in Genetics*, 6:8. doi: 10.3389/fgene.2015.00008
**Role: Senior investigator and mentor.**

102. Ross CR, DeFelice DS, Hunt GJ, Ihle KE†, **Amdam GV**, Rueppell O. (2015) Genomic correlates of recombination rate and its variability across eight recombination maps in the western

honey bee (*Apis mellifera L.*). *BMC Genomics*, 16(1):107
**Role: Collaborator.**

101. Porcellato D., Frantzen C, Rangberg A†, Umu O, Gabrielsen C, Nes I, **Amdam GV**, Diep D (2015) Draft genome sequence of *Lactobacillus kunkeei* AR114 isolated from honey bee gut. *Genome Announcements*, 3(2). pii: e00144-15. doi: 10.1128/genomeA.00144-15.
**Role: Collaborator.**

100[i]. Rangberg A†, Mathisen G, Amdam G, Diep D. (2015). The paratransgenic potential of Lactobasillus kunkeei in the honey bee *Apis mellifera*. *Beneficial Microbes*, 21:1-11
**Role: Co-senior investigator and mentor.**

99. Ihle KE†, Page RE, Amdam GV. (2015) Genotype effect on lifespan following vitellogenin knockdown. *Experimental Gerontology*, 61:113-122
**Role: Senior investigator and mentor.**

98. Ihle KE†, Rueppell, O., Huang ZY, Wang Y, Fondrk MK, Page RE, **Amdam, GV**. (2015) Genetic architecture of a hormonal response to gene knockdown in honey bees. *Journal of Heredity*, 106(2):155-65.
**Role: Senior investigator and mentor.**

97. Oostindjer M, **Amdam GV**, Egelandsdal B. Getting Norway to eat healthier: What are the opportunities? (2015). *Scandinavian Journal of Public Health*. 43(1):66-75
**Role: Collaborator.** (This paper was conceived during my sabbatical year at the Center for Advanced Study (CAS), Norwegian Academy of Science and Letters, with the project "Ecology of Food Perception". I was awarded the project because of my work on associations between honey bee physiology and food perception)

96[i]. Dragsted LO, Alexander J, **Amdam G**, Bryan N, Chen D, Haug A, Karlsson AH, de Kok T, Kulseng BE, Martin RJ Jr, Milkowski A, Pajari AM, Pickowa J, Rudi K, Sødring MS, Oostindjer M, Egelandsdal B. (2014) Colorectal cancer risk and association with red meat - Is it inconsistent? *Meat Science*, 98(4):792-4. doi: 10.1016/j.meatsci.2014.07.032.
**Role: Collaborator.** (This paper was conceived during my sabbatical year at the Center for Advanced Study (CAS), Norwegian Academy of Science and Letters, with the project "Ecology of Food Perception". I was awarded the project because of my work on associations between honey bee reproductive physiology and food perception)

95. Ihle KE†, Baker NA, **Amdam GV**. (2014) Insulin-like peptide response to nutritional input in honey bee workers. *Journal of Insect Physiology*. 69:49-55
**Role: Senior investigator and mentor.**

94[i].Scholl C, Wang Y, Krischke M, Mueller MJ, **Amdam GV**, Rössler W. (2014) Light exposure leads to reorganization of microglomeruli in the mushroom bodies and influences juvenile hormone levels in the honeybee. *Developmental Neurobiology*, 74(11):1141-1153
**Role: Collaborator and PhD committee member.** (The paper features collaborative research between my team at ASU and the lab of Prof. Rössler at the University of Würzburg, Germany. I am a member of the PhD committee of first author Christina Scholl, who performed the collaborative research in my lab at ASU).

93[i]. Oostindjer M, Alexander J, **Amdam GV**, Andersen G, Bryan NS, Chen D, Corpet DE, De Smet S, Dragsted LO, Haug A, Karlsson AH, Kleter G, de Kok TM, Kulseng B, Milkowski AL, Martin RJ, Pajari AM, Paulsen JE, Pickova J, Rudi K, Sødring M, Weed DL, Egelandsdal B. (2014) The role of red and processed meat in colorectal cancer development: a perspective. *Meat Science* 97(4):583-596
**Role: Collaborator.** (The paper reviews current knowledge and debate about the healthiness of red meat. This article is a deliverable from my sabbatical project "The Ecology of Food Perception" at the Centre for Advanced Study in Oslo, Norway).

92. Hystad EM†, **Amdam GV**, Eide L. (2014) Mitochondrial DNA integrity changes with age but does not correlate with learning performance in honey bees. *Experimental Gerontology* 49:12-8.
**Role: Co-senior investigator and mentor.**

91[i]. Flatt T, **Amdam GV**, Kirkwood TB, Omholt SW. (2013) Life-history evolution and the polyphenic regulation of somatic maintenance and survival. *Quarterly Review of Biology*, 88(3):185-218.
**Role: Collaborator.** (This paper reviews life histories and evolutionary theories on aging in three invertebrates: The roundworm *Caenorhabditis elegans*, the fruit fly *Drosophila melanogaster*, and the honey bee *Apis mellifera*. I wrote the text about the honey bee, commented and helped shape the manuscript overall.

90. Siegel AJ†, Fondrk MK, **Amdam GV**, Page RE Jr. (2013) In-hive patterns of temporal polyethism in strains of honey bees (Apis mellifera) with distinct genetic backgrounds. *Behavioral Ecology Sociobiology* 67:1623-1632.
**Role: Collaborator and mentor.** (This manuscript was developed by Siegel, a graduate student in the Page laboratory at ASU. I assisted with the design of the study and mentoring of Siegel).

89[i]. Münch D, Baker N, Rasmussen EM†, Shah AK†, Kreibich CD, Heidem LE†, **Amdam GV**. (2013) Obtaining specimens with slowed, accelerated and reversed aging in the honey bee model. *Journal of Visualized Experiments* 29;(78).
**Role: Senior investigator and mentor.**

88[i]. Wang Y, Azevedo SV, Hartfelder K, **Amdam GV.** (2013) Insulin-like peptides (AmILP1 and AmILP2) differentially affect female caste development in the honey bee (*Apis mellifera*). *Journal of Experimental Biology* 216; 4347-57
**Role: Senior investigator and mentor.**

87. Wang Y, Baker N, **Amdam GV.** (2013) RNAi-mediated double gene knockdown and gustatory perception measurement in honey bees (*Apis mellifera*). *Journal of Visualized Experiments* 25;(77).
**Role: Senior investigator and mentor.**

86[i]. Havukainen H, Munch D, Baumann A, Zhong S, Halskau O, Krogsgaard M, **Amdam GV**. (2013) Vitellogenin recognizes cell damage through membrane binding and shields living cells from reactive oxygen species. *Journal of Biological Chemistry* 288(39):28369-81
**Role: Senior investigator and mentor.** (The work was performed by Havukainen in the laboratory of my collaborator Halskau. Münch at the Norwegian University of Life Sciences assisted with immunohistochemistry. All experiments were conducted in Norway).

85. Yamamoto R, Bai H, Dolezal AG†, **Amdam GV**, Tatar M. (2013) Juvenile hormone regulation of Drosophila aging. *BMC Biology* 17;11:85.
**Role: Collaborator**

84[i]. Nunes FM, Ihle KE, Mutti NS, Simões ZL, Amdam GV. (2013) The gene vitellogenin affects microRNA regulation in honey bee (*Apis mellifera*) fat body and brain. *Journal of Experimental Biology* 216(Pt 19):3724-32.
**Role: Senior investigator and mentor.**

83. Flores KB, Wolschin F, **Amdam GV**. (2013) The role of methylation of DNA in environmental adaptation. *Integrative Comparative Biology*. 53(2):359-72.
**Role: Senior investigator and mentor.**

82. Münch D, Kreibich CD, **Amdam GV**. (2013) Aging and its modulation in a long-lived worker caste of the honey bee. *Journal of Experimental Biology.* 216(Pt 9):1638-49. With Editorial
**Role: Senior investigator and mentor.** (The experiments were conducted at the Norwegian University of Life Sciences).

81. Dolezal AG†, Johnson J, Hölldobler B, **Amdam GV.** Division of labor is associated with age-independent changes in ovarian activity in Pogonomyrmex californicus harvester ants. (2013) *Journal of Insect Physiology*. 2013 59(4):519-24.
**Role: Senior investigator and mentor.**

80. Oostindjer, M. and **Amdam, G.V.** (2013) Systems integrity in health and aging – an animal model approach. *Healthspan and Longevity*, 2:2
**Role: Senior investigator and mentor.** (This perspectives paper was written at the Norwegian University of Life Sciences). Journal impact factor = pending. Total citations =

79. Herb, B., Wolschin, F., Aryee, M., Langmead, B., **Amdam, G.V**, and Feinberg, A.P. (2012) Reversible switching between epigenetic states in honeybee behavioral subcastes. *Nature Neuroscience*, 15, 1371-1373
**Role: Co-senior investigator and mentor.** (The work is a collaboration between the Amdam laboratory and the group of Feinberg at Johns Hopkins University. The ASU laboratory has performed behavioral manipulations of honey bees and provided all the biological material for the manuscript. The JHU team has conducted genomic, epigenomic and transcriptomic analyses). Journal impact factor = 15.531. Total citations

78. Flores, K., Wolschin, F., Corneveaux, J.J., Allen, A., Huentelman, M.J. and **Amdam, G.V.** (2012) Genome-wide association between DNA methylation and alternative splicing in an invertebrate. *BMC Genomics* 13(1):480
**Role: Senior investigator and mentor.** (This text is based on bioinformatical work by Flores and Wolschin at ASU. Transcriptome (RNA-seq) data were provided by Huentelman's group at T-Gen, Phoenix). Journal impact factor = 4.070. Total citations =

77.[i] Rascón, B. †, Hubbard, B.P., Sinclair, D.A. and **Amdam, G.V**. (2012). The lifespan extension effects of resveratrol are conserved in the honey bee and may be driven by a mechanism related to caloric restriction. *Aging* 4, 499-508
**Role: Senior investigator and mentor.** (Experiments were conducted by Rascón at the Norwegian University of Life Sciences and at ASU. Sinclair's laboratory at Harvard provided resveratrol, protocols, and mentoring. This project was an international collaboration for Rascón). Journal impact factor = 5.127. Total citations =

76. Page, R.E., Rueppell, O. and **Amdam, G.V.** Genetics of reproduction and regulation of honey bee (*Apis mellifera* L.) social behavior (2012). *Annual Review of Genetics*, 46, 97-119
**Role: Collaborator.** (The manuscript was an invitation to Page. I contributed written sections on candidate genes for honey bee social behavior and RNA interference technology in addition to several illustrations). Journal impact factor = 22.233. Total citations =

75. Wang, Y., Brent, C., Fennern, E. and **Amdam, G.V.** (2012) Gustatory perception and fat body energy metabolism are jointly affected by vitellogenin and juvenile hormone in honey bees. *PLoS Genetics* 8(6), e1002779
**Role: Senior investigator and mentor.** (Experiments were conducted by Wang and Fennern at ASU. Brent's USDA laboratory assisted with hormone analyses). Journal impact factor = 9.543. Total citations = . Total article views =

74. Rangberg, A.†, Diep, D., Rudi, K. and **Amdam, G.V.** (2012) Paratransgenesis: an approach to improve colony health and molecular insight in honey bees (*Apis mellifera*)? *Integrative & Comparative Biology* 52, 89-99
**Role: Senior investigator and mentor.** (The paper was an encouraged submission by the Society of Integrative & Comparative Biology and the National Science Foundation. All authors are affiliated with the Norwegian University of Life Sciences). Journal impact factor = 2.626. Total citations =

73[i]. Ament, S.A., Blatti, C.A, Alaux, C., Wheeler, M.M., Toth, A.L., LeConte, Y., Hunt, G.J.,

Guzmán-Novoa, E., DeGrandi-Hoffman, G., Uribe-Rubio, J.L., **Amdam, G.V.**, Page, R.E., Rodriguez-Zas, S.L., Robinson, G.E., and Sinha, S. (2012). New meta-analysis tools reveal common transcriptional regulatory basis for multiple determinants of behavior. *Proceedings of the National Academy of Sciences USA PNAS* 109, E1801-E1810
**Role: Collaborator.** (I provided tissue material to the project based on a phenotyping of honey bees for variation in foraging behavior. This provided one of several datasets for the manuscript). Journal impact factor = 9.771. Total citations =

72[i]. Havukainen, H.†, Underhaug, J., **Amdam, G.V.** and Halskau, Ø. (2012) A vitellogenin polyserine cleavage site: highly disordered conformation protected from proteolysis by phosphorylation. *Journal of Experimental Biology* 215, 1837-1846
**Role: Co-senior investigator and mentor.** (Structural work on vitellogenin was performed in the laboratory of my former Senior Research Fellow and current collaborator Halskau, University of Bergen, Norway). Journal impact factor = 3.040. Total citations =

71. Baker, N.†, Wolschin, F. and **Amdam, G.V.** (2012) Age-related learning deficits can be reversed in honeybees *Apis mellifera*. *Experimental Gerontology*, 47, 64-72
**Role: Senior investigator and mentor.** (Publication is the Master's Thesis of Baker at ASU). Journal impact factor = 3.804. Total citations =

70[i]. Wolschin, F., Shpigler, H., **Amdam, G.V.** and Bloch, G. (2012) Size-related variation in protein abundance in the brain and abdominal tissue of bumblebee workers. *Insect Molecular Biology*, 21, 319-325
**Role: Co-senior investigator and mentor.** (Publication resulted from binational collaboration with Bloch; an expert on bumble bee biology. Samples were shipped from Bloch's laboratory at the Hebrew University, Israel, and matched by samples from my laboratory, before analyses were performed at ASU by my postdoc Wolschin). Journal impact factor = 2.669. Total citations =

69. Dolezal, A.G.†, Brent, C.B., Hölldobler, B. and **Amdam, G.V.** (2012) Worker division of labor and endocrine physiology are associated in the harvester ant, *Pogonomyrmex californicus*. *Journal of Experimental* Biology, 215, 454-460
**Role: Senior investigator and mentor.** (Publication presents behavioral studies by Dolezal at ASU. Brent's USDA laboratory in Maricopa assisted with hormone analyses and data interpretation). Journal impact factor = 3.040. Total citations =

68[i]. Kapheim, K.M., Smith, A.R., Ihle, K.E.†, **Amdam, G.V.,** Nonacs, P. and Wcislo, W.T. (2012) Evidence for a developmental ground plan in caste evolution from a facultatively eusocial sweat bee. *Proceedings of the Royal Society B*, 279, 1437-1446
**Role: Collaborator and mentor.** (Kapheim visited my program at ASU to develop her research plan, and later returned to analyze samples together with my graduate student Ihle. Kapheim's studies were performed with the Smithsonian Tropical Research Institute, Panama). Journal impact factor = 5.064. Total citations =

67. Wang, Y., Kocher, S.D., Linksvayer, T.A., Grozinger, C.M., Page, R.E. and **Amdam, G.V.** (2012) Regulation of behaviorally-associated gene pathways in worker honey bee ovaries. *Journal of Experimental Biology*, 215,124-134
**Role: Senior investigator and mentor.** (Publication presents a global, genome-transcriptional analysis performed by Wang in collaboration with Grozinger's group at Penn State. Kocher and Linksvayer (UPenn) contributed with bioinformatical analyses). Journal impact factor = 3.040. Total citations =

66[i]. Havukainen, H.†, Halskau, Ø. and **Amdam, G.V.** (2011) Social pleiotropy and evolution of honey bee vitellogenin. *Molecular Ecology*, 20, 5111–5113
**Role: Senior investigator and mentor.** (This is an invited, peer-reviewed perspective paper commenting on a genetic and structural analysis of honey bee vitellogenin performed by Kent et al. (2011) Molecular Ecology, 20, 5226-5235. Halskau is at the University of Bergen, Norway). Journal impact factor = 6.457. Total citations =

65[i]. Hunt, J.H., Mutti, N.S, Havukainen, H.†, Henshaw, M.T., Howe, M.K. and **Amdam, G.V**. (2011) Development of an RNA Interference Tool, Characterization of Its Target, and an Ecological Test of Caste Differentiation in the Eusocial Wasp Polistes. *PloS ONE*, 6: e26641
**Role: Co-senior investigator and mentor.** (Together with my postdoc Mutti, Hunt's team at North Carolina

State University performed RNAi-mediated gene knockdown experiments on *Polistes* wasp. RNA samples were analyzed by Mutti at ASU and protein samples by my student Havukainen in Norway). Journal impact factor = 4.411. Total citations = . Total article views =

64. Mutti, N.S., Dolezal, A.G.†, Wolschin, F., Mutti, J.S, Gill, K.S. and **Amdam, G.V.** (2011) IRS and TOR nutrient-signaling pathways act via juvenile hormone to influence honey bee caste fate. *Journal of Experimental Biology*, 214, 3977-3984
**Role: Co-senior investigator and mentor.** (This is a synthesis of transcript, epigenetic, proteomic, and endocrine data from developmental gene knockdowns. All studies performed at ASU. Mutti (JS) and Gill, Washington State University, assisted the epigenetic work). Journal impact factor = 3.040. Total citations =

63. Chan, Q.W.T., Mutti, N.S., Foster, L.J., Kocher, S., **Amdam, G.V.** and Wolschin, F. (2011) Proteomic restructuring of the abdominal fat body precedes a behavioral change in honeybees. *PLoS ONE* 6: e24794.
**Role: Collaborator and mentor.** (Publication presents proteomic and metabolic data that describe honey bee behavioral physiology. Samples were collected by my group and analyzed by postdoc Wolschin in the Foster laboratory at University of Vancouver, Canada). Journal impact factor = 4.411. Total citations = . Total article views =

62[i]. **Amdam, G.V.** and Hovland, A.L. (2011) Animal preferences and choice. *Nature, Education Knowledge*, 2(11):6
**Role: Co-senior investigator.** (This is an invited, peer-reviewed article for Nature Publishing Group and their new initiative to build free online tools for science library, education and knowledge: http://www.nature.com/scitable. My collaborator Hovland is at the Norwegian University of Life Sciences. Journal impact factor = Not yet indexed by Thomson Reuters. Total citations =

61. Flores, K. and **Amdam G.V.** (2011) Deciphering a methylome: What can we read into patterns of DNA methylation? *Journal of Experimental Biology*, 214, 3155-3263
**Role: Senior investigator and mentor.** (This is an invited, peer-reviewed commentary/perspectives paper). Journal impact factor = 3.040. Total citations =

60. Mutti, N.S., Wang, Y., Kaftanoglu, O. and **Amdam, G.V.** (2011) Honey bee PTEN - description, developmental knockdown, and tissue-specific expression of splice-variants correlated with social behavior. *PLoS ONE* 6: e22195
**Role: Senior investigator and mentor.** (Publication presents DNA sequencing, transcript and behavioral data. All experiments were performed at ASU). Journal impact factor = 4.411. Total citations = . Total article views =

59. Linksvayer, T.A., Kaftanoglu, O., Akyol, E., Blatch, S., **Amdam, G.V**. and Page, R.E. (2011) Larval and nurse worker control of developmental plasticity and the evolution of honey bee queen-worker dimorphism. *Journal of Evolutionary Biology*, 24, 1939-1948
**Role: Collaborator.** (I designed experiments together with Linksvayer and Page, and contributed to the writing. Data and analyses by the Page laboratory at ASU). Journal impact factor = 3.656. Total citations =

58. Graham, A.M., Munday, M.D., Kaftanoglu, O., Page, R.E. Jr, **Amdam, G.V.** and Rueppell, O. (2011) Support for the reproductive ground plan hypothesis of social evolution and major QTL for ovary traits of Africanized worker honey bees (*Apis mellifera* L.). *BMC Evolutionary Biology*, 11, e95
**Role: Collaborator.** (I designed these experiments in collaboration with Rueppell and Page, and contributed to the writing. Samples were produced by the Page laboratory at ASU and analyzed by Rueppell's team at the University of North Carolina). Journal impact factor = 3.700. Total citations =

57[i]. Tolfsen, C.C., Baker, N.†, Kreibich, C. and **Amdam, G.V.** (2011) Flight restriction prevents associative learning deficits but not changes in brain protein adduct-formation during honeybee ageing. *Journal of Experimental Biology*, 214, 1322-1332. Journal Cover Illustration
**Role: Senior investigator and mentor.** (Publication presents sensory and learning data together with brain protein analyses. All experiments were performed in my laboratory at the Norwegian University of Life Sciences. Baker (ASU) visited Norway to collaborate with Tolfsen). Journal impact factor = 3.040. Total citations =

56[i]. Nilsen, K.A.†, Ihle, K.E.†, Frederick, K.*, Smedal, B.†, Fondrk M.K., Hartfelder, K. and **Amdam, G.V.** (2011) In honeybee fat body, insulin-like peptide genes respond differently to manipulation of social behavioral physiology. *Journal of Experimental Biology*, 214, 1488-1497
**Role: Senior investigator and mentor.** (Publication is the Master's Thesis of Nilsen. The research was conducted at ASU and at the Norwegian University of Life Sciences. Hartfelder at the University of Sao Paulo, Brazil, assisted with endocrine measurements and data interpretation. Journal impact factor = 3.040. Total citations =

55[i]. Havukainen, H.†, Halskau, Ø., Skjaerven, L. and **Amdam, G.V.** (2011) Deconstructing honeybee vitellogenin: novel 40 kDa fragment assigned to its N-terminus. *Journal of Experimental Biology*, 214, 582-592. Journal Cover Illustration
**Role: Senior investigator and mentor.** (Vitellogenin protein samples were produced in my laboratory at the Norwegian University of Life Sciences, and analyzed by Havukainen in collaboration with Halskau using facilities at the University of Bergen, Norway). Journal impact factor = 3.040. Total citations =

54. Rueppell, O., Metheny, J.D., Linksvayer, T., Fondrk, K.M., Page, R.E. and **Amdam, G.V.** (2011). The genetic architecture of ovary size and asymmetry in European honey bee (*Apis mellifera*, L.) workers. *Heredity*, 106, 894-903
**Role: Senior investigator.** (I designed these experiments in collaboration with Rueppell and Page. Samples were developed by the Page laboratory at ASU and analyzed by Rueppell's group at the University of North Carolina. Rueppell and I developed the article). Journal impact factor = 4.569. Total citations =

53. **Amdam, G.V.** (2011) Social context, stress, and plasticity of aging. *Aging Cell*, 10, 18-27. Journal Cover Illustration.
**Role: Senior investigator.** (This is a review/theory paper). Journal impact factor = 7.148. Total citations =

52. Wolschin, F., Mutti, N.S. and **Amdam, G.V.** (2011) Insulin receptor substrate influences female caste development in honeybees, *Biology Letters*, 7, 112-115.
**Role: Senior investigator and mentor.** (Publication is a collaboration between two postdocs in my ASU laboratory. It presented the first dual knockdown of genes in honey bee larvae). Journal impact factor = 3.651. Total citations =

51[i]. Münch, D., Baker, N.†, Kreibich, C., Bråten, A.T.* and **Amdam G.V.** (2010) In the laboratory and during free-flight: aged honey bees reveal learning and extinction deficits that mirror mammalian functional decline. *PloS ONE* 5, e13504
**Senior investigator and mentor.** (Publication is a collaboration between postdocs Münch at the Norwegian University of Life Sciences, and graduate student Baker at ASU. All experiments were performed in Norway). Journal impact factor = 4.411. Total citations = . Total article views =

50. Wang, Y., Kaftanoglu, O., Siegel, A.J., Page, R.E. and **Amdam, G.V**. (2010) Surgically increased ovarian mass in the honey bee confirms link between reproductive physiology and worker behavior. *Journal of Insect Physiology* 56, 1816-1824
**Senior investigator and mentor.** (With this article, Wang was the first to achieve successful ovarian transplantations in honey bee workers. All experiments were performed at ASU. Journal impact factor = 2.310. Total citations =

49. **Amdam, G.V.,** Fondrk, M.K., Page, R.E. and Brent, C.S. (2010) Hormone response to bidirectional selection on social behavior. *Evolution and Development*, 12, 428-436. Journal Cover illustration.
**Co-senior investigator.** (Publication is a collaboration with Brent, USDA Maricopa. It provides extensive developmental physiology data on honey bee workers. Samples were collected at University of California, Davis, and analyzed at ASU. Journal impact factor = 3.075. Total citations =

48. Hunt, J.H., Wolschin, F., Henshaw, M. T., Newman, T.C., Toth, A. and **Amdam, G.V.** (2010) Differential gene expression and protein abundance evince ontogenetic bias toward castes in a primitively social wasp. *PLoS ONE* 5, e10674
**Co-senior investigator and mentor.** (Publication is in partnership with Hunt's team at North Carolina State University. Postdoc Wolschin performed the proteomic analyses at ASU, while gene expression was measured at the University of Illinois where Hunt was a visiting scholar working with Toth and Newman).

Journal impact factor = 4.411. Total citations = . Total article views =

47. Münch, D. and **Amdam G.V.** (2010) The curious case of aging plasticity in honey bees. *FEBS* Letters 584, 2496-2503
**Role: Senior investigator and mentor.** (This is a review/theory paper). Journal impact factor = 3.601. Total citations =

46. **Amdam, G.V.** Fennern, E., Baker, N. and Rascón, B.† (2010) Honeybee associative learning performance and metabolic stress resilience are positively associated. *PLoS ONE* 5, e9740
**Role: Senior investigator and mentor.** (I designed experiments that were carried out by staff members Fennern and Baker. Rascon developed a critical method that enabled the study. All experiments conducted at ASU). Journal impact factor = 4.411. Total citations = . Total article views =

45. Wang, Y., Mutti, N.S, Ihle, K.E.†, Siegel, A., Dolezal, A.G.†, Kaftanoglu, O. and **Amdam, G. V.** (2010) Down-regulation of honeybee IRS gene biases behavior toward food rich in protein. *PLoS Genetics.* 6, e1000896. Featured in *Nature* Research Highlights (Vol. 464, p. 961) and Science News (Vol.177/9, p. 16)
**Role: Senior investigator and mentor.** (This publication presents transcript, *in situ*, sensory and behavioral data. All experiments performed at ASU). Journal impact factor = 9.543. Total citations = . Total article views =

44. **Amdam, G.V.** and Page R.E. (2010) The developmental genetics and physiology of honeybee societies. *Animal Behaviour* 79, 973-980
**Role: Co-senior investigator.** (This review centers progress in understanding honey bee behavior, with a focus on data from the 8 year-long collaboration between Page and me). Journal impact factor = 3.101. Total citations =

43. Ihle, K.E.†, Page, R.E., Frederick, K.*, Fondrk, M.K. and **Amdam, G.V.** (2010) Genotype effect on regulation of behaviour by *vitellogenin* supports reproductive origin of honeybee foraging bias. *Animal Behaviour* 79, 1001-1006
**Role: Senior investigator and mentor.** (Publication combines the use of artificially selected honey bee stocks and RNAi-mediated gene knockdown with the collection of data on transcript abundance and behavior). Journal impact factor = 3.101. Total citations =

42[i]. Wolschin, F., Münch, D. and **Amdam G.V.** (2009) Structural and proteomic analyses reveal heterogeneity of senescence-related patterns in the honey bee brain. *Journal of Experimental Biology*. 212, 4027-4032
**Role: Senior investigator and mentor.** (This article is a collaboration between postdocs Wolschin and Münch at ASU and the Norwegian University of Life Sciences, respectively. Münch harvested honey bee brains and performed anatomical measurements, while Wolschin conducted the proteomic analysis). Journal impact factor = 3.040. Total citations =

41. Smedal, B.†, Brynem, M., Kreibich, C.D. and **Amdam, G.V.** (2009). Brood pheromone suppresses physiology of extreme longevity in honey bees (*Apis mellifera*). *Journal of Experimental Biology* 212, 3795-3801. With Editorial
**Role: Senior investigator and mentor.** (The paper is the Mater's Thesis of Smedal. All experiments were performed at the Norwegian University of Life Sciences). Journal impact factor = 3.040. Total citations =

40. Linksvayer, T.A., Rueppell, O., Kaftanoglu, O., Page, R.E. and **Amdam, G.V.** (2009) The genetic basis for transgressive ovary size in honey bee workers. *Genetics* 183, 693-707
**Role: Co-senior investigator.** (The publication is based on physiology work and bioinformatical analyses by Linksvayer in collaboration with Rueppell. Experiments were designed by Rueppell, Page and Amdam). Journal impact factor = 4.087. Total citations =

39. **Amdam, G.V.,** Rueppell, O., Fondrk, M.K., Page, R.E. and Nelson, C.M. (2009) The nurse's load: early-life exposure to brood-rearing affects behavior and lifespan in honey bees (*Apis mellifera*). *Experimental Gerontology*. 44, 467-471
**Role: Co-senior investigator.** (Publication was developed from data collected by Nelson at the University of California, Davis. Experiments were designed by Page and Amdam based on a grant proposal written by Rueppell and Page). Journal impact factor = 3.804. Total citations =

38. Dolezal, A.†, Brent, C., Gadau, J., Hölldobler, B. and **Amdam, G.V.** (2009) Endocrine physiology of division of labor in *Pogonomyrmex californicus* founding queens. *Animal Behaviour*. 77, 1005-1010. With Editorial
**Role: Senior investigator and mentor.** (The article finds links between hormones and behavioral variation in ant queens. All experiments conducted at ASU). Journal impact factor = 3.101. Total citations =

37. Wang, Y., **Amdam, G.V.**, Rueppell, O., Wallrichs, M.A., Fondrk, M.K., Kaftanoglu, O. and Page, R.E. (2009) *PDK1* and *HR46* gene homologs tie social behavior to ovary signals. *PLoS ONE.* 4: e4899
**Role: Collaborator and mentor.** (Publication presents genomic and transcript data in addition to measurements of physiology and behavior. The experiments were developed by Wang, Page and Amdam. I mentored Wang through the various transcript analyses. Rueppell assisted with bioinformatics. Experiments were performed at ASU and the University of North Carolina). Journal impact factor = 4.411. Total citations = . Total article views =

36[i]. Scheiner, R. and **Amdam, G.V.** (2009) Impaired tactile antennal learning is related to long foraging duration in honey bees. *Journal of Experimental Biology*. 212: 994-1002. Journal Cover Illustration and Editorial
**Role: Co-senior investigator.** (This work represents an international collaboration with the laboratory of Scheiner, Technical University of Berlin, Germany. Experiments were designed by Scheiner and Amdam, and conducted in the Scheiner laboratory with the assistance of local undergraduate students). Journal impact factor = 3.040. Total citations =

35. Tsuruda, J., **Amdam G.V.** and Page, R.E. (2008) Sensory response system of social behavior tied to female reproductive traits. *PLoS ONE.* 3: e3397
**Role: Collaborator and mentor.** (Publication presents data on ovarian physiology, vitellogenin transcript amounts and sensory sensitivity. Experiments were developed by the author team and conducted at University of California Davis and ASU. I mentored Tsuruda during her work with ovarian dissections and transcript quantification). Journal impact factor = 4.411. Total citations = . Total article views =

34. **Amdam, G.V.** and Page, R.E. (2008) Oldroyd and Beekman do not test ground plan hypothesis that explains origins of social behavior. *PLoS Biology*: 6 e56#r2248
**Role: Co-senior investigator.** (This is a citable response to Oldroyd and Beekman (2008) PLoS Biology, 6(3): e56. The text was evaluated by the Academic Editor, but not peer-reviewed). Journal impact factor = 12.196. Total citations =

33[i]. Münch, D., **Amdam G.V.** and Wolschin, F. (2008) Aging in a eusocial insect: molecular and physiological characteristics of life span plasticity in the honey bee. *Functional Ecology*. 22, 407-421. Journal Cover Illustration
**Role: Senior investigator and mentor.** (The publication is a review paper written largely by Münch, Norwegian University of Life Sciences, and Wolschin, ASU. Images for the journal cover illustration were contributed by graduate students Smedal, Norwegian University of Life Sciences and Ihle, ASU). Journal impact factor = 4.650. Total citations =

32[i]. Seehuus, S.-C., Norberg, K., Krekling, T., Fondrk M.K. and **Amdam, G.V.** (2007) Immunogold localization of vitellogenin in the ovaries, hypopharyngeal glands and head fat bodies of honeybee workers, *Apis mellifera*. *Journal of Insect Science* 7: 52. Featured Paper by JIS
**Role: Senior investigator and mentor.** (This article is a collaboration between postdoc Seehuus, the imaging laboratory of Krekling at the Norwegian University of Life Sciences, and Fondrk at the University of California, Davis. Seehuus visited Davis to collect ovarian samples, which were analyzed in Norway). Journal impact factor = 1.070. Total citations =

31[i]. Behrends, A., Scheiner, R., Baker, N. and **Amdam, G.V.** (2007) Cognitive aging is linked to social role in honey bees (*Apis mellifera*). *Experimental Gerontology* 42: 1146-1153
**Role: Co-senior investigator.** (This paper is an international collaboration with the laboratory of Scheiner, Technical University of Berlin, Germany. Experiments were designed by Scheiner and Amdam, and conducted at ASU and in the Scheiner laboratory). Journal impact factor = 3.804. Total citations =

30. Wolschin, F. and **Amdam G.V.** (2007) Plasticity and robustness of protein patterns during reversible development in the honey bee (*Apis mellifera*). *Analytical & Bioanalytical Chemistry*

389: 1095-1100
**Role: Senior investigator and mentor.** (Publication presents proteomic data by Wolschin. All experiments were conducted at ASU). Journal impact factor = 3.841. Total citations =

29. Wolschin, F. and **Amdam G.V.** (2007) Comparative proteomics reveal characteristics of life-history transitions in a social insect. *Proteome Science* 5: 10
**Role: Senior investigator and mentor.** (Publication presents proteomic data by Wolschin. All experiments were conducted at ASU). Journal impact factor = 2.490. Total citations =

28. Patel, A.*, Fondrk, K.F., Kaftanoglu O., Emore, C., Hunt, G., Frederick, K.* and **Amdam, G.V**. (2007) The making of a queen: TOR pathway is a key player in diphenic caste development. *PLoS ONE* 6: e509. Featured in *Nature* Research Highlights.
**Role: Senior investigator and mentor.** (This article was developed from results obtained by Patel during her undergraduate internship at ASU. Hunt's team at Purdue University assisted with gene cloning). Journal impact factor = 4.411. Total citations = . Total article views =

27[i]. Hunt, J.H., Kensinger, B.J., Kossuth, J.A., Henshaw, M.T., Norberg, K., Wolschin, F. and **Amdam G.V.** (2007) A diapause pathway underlies the gyne phenotype in *Polistes* wasps, revealing an evolutionary route to caste-containing insect societies. *Proceedings of the National Academy of Science USA* 104: 14020-14025
**Role: Co-senior investigator and mentor.** (Publication is an international collaboration with Hunt's team and the Norwegian University of Life Sciences. Samples were collected by Hunt and students at North Carolina State University, and analyzed by Wolschin, ASU, and Norberg at the Norwegian University of Life Sciences). Journal impact factor = 9.771. Total citations =

26[i]. **Amdam, G.V.**, Nilsen, K.A.*, Norberg, K., Fondrk, M.K. and Hartfelder, K. (2007) Variation in endocrine signaling underlies variation in social life-history. *The American Naturalist* 170: 38-46
**Role: Co-senior investigator and mentor.** (This work is an international collaboration with experiments conducted at University of California Davis by Nilsen and Fondrk, at ASU by Nilsen and Amdam, at the Norwegian University of Life Sciences, by Norberg and Nilsen, and at the University of Sao Paulo, Brazil by Hartfelder). Journal impact factor = 4.736. Total citations =

25. Nelson, C.M., Ihle, K.†, Fondrk, M.K., Page, R.E. and **Amdam, G.V.** (2007) The gene vitellogenin has multiple coordinating effects on social organization. *PLoS Biology* 5: 673-677. With Editorial
**Role: Co-senior investigator and mentor.** (This paper combines experimental work on behavior performed at the University of California Davis by Nelson and Ihle, with transcript/protein studies conducted by Ihle at ASU). Journal impact factor = 12.196. Total citations = . Total article views =

24. Page, R.E. and **Amdam, G.V.** (2007) The making of a social insect: developmental architectures of social design. *Bioessays* 29: 334-343. Journal Cover Illustration
**Role: Co-senior investigator.** (A review/theory paper on the role of reproductive physiology and behavior in social insect evolution). Journal impact factor = 4.479. Total citations =

23[i]. Hunt, G., **Amdam, G.V**., Schlipalius, D., Rueppell, O., Guzmán-Novoa, E., Arechavaleta-Velasco, M., Chandra, S., Emore C., Fondrk, M.K., Beye, M. and Page, R.E. (2007) Behavioral genomics of honeybee foraging and nest defense. *Naturwissenschaften* 94: 247-267. Journal Cover Illustration
**Role: Collaborator.** (A review/analysis paper summarizing insights from comparing quantitative trait genome mapping to genome sequence data. The author team included scientists from USA, Mexico and Germany. This was a companion paper to the Honeybee Genome). Journal impact factor = 2.250. Total citations =

22[i]. The Honeybee Genome Sequencing Consortium, including **Amdam, G.V.** (2006) Insights into social insects from the genome of the honey bee *Apis mellifera*. *Nature* 443: 931-949. Journal Cover Illustration
**Role: Collaborator/contributor.** (The official release of the honey bee genome sequence). Journal impact factor = 31.085. Total citations =

21. Seehuus, S.-C.†, Krekling, T. and **Amdam, G.V.** (2006) Cellular senescence in honey bee brain is largely independent of chronological age. *Experimental Gerontology* 41: 1117-1125
**Role: Senior investigator and mentor.** (This paper uses histology, immunohistochemistry and western blot procedures to investigate patterns of brain aging. All experiments were conducted at the Norwegian University of Life Sciences). Journal impact factor = 3.804. Total citations =

20. **Amdam, G.V.** and Seehuus, S.-C.† (2006) Order, disorder, death: Lessons from a superorganism. *Advances in Cancer Research* 95: 31-60
**Role: Senior investigator and mentor.** (The publication was an invited review). Journal impact factor = 4.460. Total citations =

19. Page, R.E., Scheiner, R., Erber, J. and **Amdam, G.V.** (2006) The development and evolution of division of labor and foraging specialization in a social insect (*Apis mellifera* L.). *Current Topics in Developmental Biology* 74: 251-284
**Role: Co-senior investigator.** (The publication was an invited review. The contribution was peer-reviewed). Journal impact factor = 4.620. Total citations =

18[i]. **Amdam, G.V.**, Page, R.E., Erber, J. and Scheiner, R. (2006) Downregulation of vitellogenin gene activity increases the gustatory responsiveness of honey bee workers (*Apis mellifera*). *Behavioral Brain Research* 169: 201-205
**Role: Co-senior investigator.** (This paper is an international collaboration with the team of Scheiner and Erber, Technical University of Berlin, Germany. Scheiner visited the Page laboratory at the University of California, Davis, where I was a visiting scholar. Scheiner conducted behavioral experiments on gene knockdown honey bees that I developed). Journal impact factor = 3.393. Total citations =

17[i]. Seehuus, S.-C.†, Norberg, K., Gimsa, U., Krekling, T. and **Amdam, G.V.** (2006) Reproductive protein protects sterile honey bee workers from oxidative stress. *Proceedings of the National Academy of Science USA* 103: 962-967. With Editorial
**Role: Senior investigator and mentor.** (This work is an international collaboration with the group of Gimsa at the Humboldt University, Berlin. The experimental work was performed at the Norwegian University of Life Sciences). Journal impact factor = 9.771. Total citations =

16. **Amdam, G.V.**, Csondes, A.*, Fondrk, M.K. and Page, R.E. (2006) Complex social behaviour derived from maternal reproductive traits. *Nature* 439: 76-78. Journal Cover Illustration
**Role: Co-senior investigator and mentor** (This paper was developed in collaboration with Page while I was a visiting scholar at the University of California, Davis. I mentored undergraduate student Csondes through her work to quantify ovarian physiology and foraging behavior). Journal impact factor = 31.085. Total citations =

15[i]. **Amdam, G.V.**, Norberg, K., Omholt, S.W., Kryger, P., Lourenço, A. Bitondi, M.G. and Simões, Z.L.P. (2005) Higher vitellogenin concentrations in honey bee workers may be an adaptation to life in temperate climates. *Insectes Sociaux* 52: 316-319
**Role: Graduate student.** (This work was an international collaboration with the team of Kryger at the University of Pretoria, South-Africa, and the laboratories of Bitondi and Simoes at the University of Sao Paulo, Brazil. I developed the project with Omholt, i.e., the thesis committee chair/supervisor). Journal impact factor = 1.425. Total citations =

14[i]. **Amdam, G.V.**, Aase, A.T.O.†, Seehuus, S.-C.†, Fondrk, M.K., Norberg, K. and Hartfelder, K. (2005) Social reversal of immunosenescence in honey bee workers. *Experimental Gerontology* 40: 939-947
**Role: Senior investigator and mentor** (This article was based on an experiment I developed and conducted as a visiting scholar at the University of California, Davis. My graduate student Aase visited Davis to take part in international exchange. Additional analyses were performed at the Norwegian University of Life Sciences by Seehuus. Hartfelder at the University of Sao Paulo, Brazil assisted with endocrine assays). Journal impact factor = 4.804. Total citations =

13[i]. Guidugli, K.R., Nascimento, A.M., **Amdam, G.V.**, Barchuk, A.R., Omholt, S.W., Simões, Z.L.P. and Hartfelder, K. (2005) Vitellogenin regulates hormonal dynamics in the worker caste of a eusocial insect. 579: 4961-4965, *FEBS Letters*
**Role: Graduate student/collaborator.** (This publication represents an international collaboration between

the groups of Hartfelder and Simoes at the University of Sao Paulo, and the group of Omholt where I was a graduate student. I developed the gene knockdown protocol that was used in the study. Visited the Brazilian group to transfer knowledge, and conducted the Norwegian section of the experiments at the Norwegian University of Life Sciences). Journal impact factor = 3.601. Total citations =

12. **Amdam, G.V.** and Page, R.E. (2005) Intergenerational transfers may have decoupled physiological and chronological age in a eusocial insect. *Aging Research Reviews* 4: 398-408
**Role: Co-senior investigator.** (I wrote this article as a visiting scholar at the University of California, Davis. The event was a workshop at the Max Planck Institute of Demography in Rostock, Germany. The contribution was later published by ARR. The work was peer reviewed). Journal impact factor = 9.000. Total citations =

11. Aase, A.T.O.†, **Amdam, G.V.**, Hagen, A. and Omholt, S.W. (2005) A new method for rearing genetically manipulated honey bee workers. *Apidologie* 36: 293-299
**Role: Postgraduate mentor/collaborator.** (The publication is the Master's Thesis of Aase. All experiments were performed at the Norwegian University of Life Sciences). Journal impact factor = 2.230. Total citations =

10. Hunt, H. J. and **Amdam, G.V.** (2005) Bivoltinism as an antecedent to eusociality in the paper wasp genus Polistes. *Science* 308: 264-267
**Role: Co-senior investigator.** (Hunt and I wrote this theory paper at the WIKO academy for advanced studies in Berlin, Germany. Hunt was at WIKO as a Fellow, and I visited as an Invited Guest of the Rector). Journal impact factor = 31.360. Total citations =

9[i]. **Amdam, G.V.**, Norberg, K., Fondrk, M.K. and Page, R.E. (2004) Reproductive ground plan may mediate colony-level selection effects on individual foraging behavior in honey bees. *Proceedings of the National Academy of Science USA* 101: 11350-11355
**Role: Co-senior investigator.** (The experiments for this paper were performed in the Page laboratory at the University of California, Davis, where I was a visiting scholar. The work is an international collaboration with Norberg at the Norwegian University of Life Sciences. Norberg performed protein quantifications. I conducted the remaining experiments and analyses). Journal impact factor = 9.711. Total citations =

8[i]. **Amdam, G.V.**, Hartfelder, K., Norberg, K., Hagen, A. and Omholt, S.W. (2004) Altered physiology in worker bees infested with Varroa destructor as a factor in colony loss during over-wintering. *Journal of Economic Entomology* 97: 741-747
**Role: Graduate student/collaborator.** (The publication was an international collaboration between Hartfelder at the University of Sao Paulo and the group of Omholt where I was a graduate student. I performed the experiments at the Norwegian University of Life Sciences. Hartfelder assisted with endocrine assays). Journal impact factor = 1.489. Total citations =

7. Omholt, S.W. and **Amdam, G.V.** (2004) Epigenic regulation of aging in honeybee workers. *Science of Aging Knowledge Environment* 26: pe28. Journal Online Feature Illustration
**Role: Postgraduate collaborator.** (This paper was an invited review. I contributed to the drafting and writing of text, which was peer reviewed before publication). Journal impact factor = SAGE KE archived by Science Magazine, no current IF. Total citations =

6[i]. **Amdam, G.V.**, Simões, Z.L.P., Hagen A., Norberg K., Schrøder K., Mikkelsen Ø., Kirkwood, T.B.L. and Omholt, S.W. (2004) Hormonal control of the yolk precursor vitellogenin regulates immune function and longevity in honeybees. *Experimental Gerontology* 39: 767-773
**Role: Graduate student.** (I performed the experiments in the laboratory of Omholt at the Norwegian University of Life Sciences, and with the group of Simoes at the University of Sao Paulo, Brazil. Zinc analyses were performed by the Schroder laboratory at the Norwegian University for Science and Technology). Journal impact factor = 3.804. Total citations =

5. Rueppell, O., **Amdam, G.V.**, Page, R.E. and Carey, J.R. (2004) From genes to societies. *Science of Aging Knowledge Environment* 5: pe5. Journal Online Feature Illustration
**Role: Postgraduate collaborator.** (This paper was a peer reviewed, invited review. I contributed to the drafting and writing of the text). Journal impact factor = SAGE KE archived by Science Magazine, no current IF. Total citations =

4. **Amdam, G.V.** and Omholt, S.W. (2003) The hive bee to forager transition in honeybee

colonies: The double repressor hypothesis. *Journal of Theoretical Biology 223*: 451-464
**Role: Graduate student.** (This is a theoretical paper. I generated the data with numerical computer simulations of honey bee behavioral physiology). Journal impact factor = 2.371. Total citations = 104

3. **Amdam, G.V.**, Norberg, K., Hagen, A. and Omholt, S.W. (2003) Social exploitation of vitellogenin. *Proceedings of the National Academy of Science USA* 100: 1799-1802.
**Role: Graduate student.** (I performed this study in the laboratory of Omholt at the Norwegian University of Life Sciences). Journal impact factor = 9.711. Total citations =

2[i]. **Amdam, G.V.**, Simões, Z.L.P., Guidugli, K.R., Norberg, K. and Omholt, S.W. (2003) Disruption of vitellogenin gene function in adult honeybees by intra-abdominal injection of double-stranded RNA. *BMC Biotechnology* 3:1
**Role: Graduate student.** (I performed this study in the laboratory of Omholt at the Norwegian University of Life Sciences. I visited the group of Simoes to conduct Northern blot validations of gene knockdown). Journal impact factor = 2.860. Total citations =

1. **Amdam, G.V.** and Omholt, S.W. (2002) The regulatory anatomy of honeybee lifespan. *Journal of Theoretical Biology* 216: 209-228
**Role: Graduate student.** (This is a theoretical paper. I generated the data with numerical computer simulations of honey bee behavioral physiology). Journal impact factor = 2.371. Total citations =

Contributed book chapters

11. Quigley T, **Amdam GV**, Rueppell O (2018) Models of aging in honey bee workers. In: Handbook of Models for Human Aging, 2nd Edition, Conn, P.M. (Ed.), Academic San Diego *in press*

10. Ihle KE, **Amdam GV**, Dolezal AG (2016). Evo-Devo of Social Behavior. *In: Evolutionary Developmental Biology*, L. Nuño de la Rosa, G.B. Müller (Eds.), Springer International Publishing Switzerland, DOI 10.1007/978-3-319-33038-9_45-1. *In press.* **Role: Mentor and collaborator**

9. Gyan P. Harwood†, Kate E. Ihle, Heli Salmela, and Gro V. Amdam (2016) Regulation of honey bee worker (*Apis mellifera*) life-histories by Vitellogenin *In*: *Hormones, Brain and Behavior*, Second Edition., Elsevier Academic Press, San Diego, CA. *In press***. Role: Senior investigator and mentor.**

8. Münch D., and **Amdam, G.V.** (2013). Brain aging and performance plasticity in honey bees. *In*: *Invertebrate learning and Memory. Menzel, R & Benjamin, P.R.* (Eds.), Elsevier/Academic Press
**Role: Senior investigator and mentor.** (This contribution was developed at ASU and the Norwegian University of Life Sciences)

7. Dolezal, A.G. †, Flores, K.B., Traynor, K.S.† and **Amdam, G.V.** (2013) The Evolution and development of eusocial insect behavior. *In*: *Advances in Evolution and Development.* Streelman, J. (Ed.), John Wiley and Sons
**Role: Senior investigator and mentor.** (This contribution was developed at ASU)

6[i]. **Amdam, G.V**., Fennern, E. and Havukainen, H.† (2011) Vitellogenin in honey bee behavior and lifespan. *In: Honeybee Neurobiology and Behavior: A Tribute to Randolf Menzel*. Eds. Galizia, G., Eisenhardt, D. & Giurfa, M., Springer Verlag
**Role: Senior investigator and mentor.** (Writing this chapter was a collaborative experience for Fennern (ASU) and Havukainen (Norwegian University of Life Sciences).

5[i]. Rascón, B.†, Mutti, N.S., Tolfsen, C. and **Amdam, G.V.** (2011) Honey Bee Life-History Plasticity — Development, Behaviour, Ageing. *In: Molecular Mechanisms of Life History Evolution*. Eds. Flatt, T. & Heyland, A., Oxford University Press, NY
**Role: Senior investigator and mentor.** (This chapter involved international collaboration between Rascon and Mutti (ASU) and Tolfsen (Norwegian University of Life Sciences).

4. **Amdam, G.V.**, Ihle, K.E.† and Page, R.E. (2009) Regulation of worker honey bee (*Apis mellifera*) life histories by vitellogenin. *In*: *Hormones, Brain and Behavior*. Eds. Pfaff D, Arnold A, Etgen A, Fahrbach S, & Rubin R, pp. 1003-1025, Elsevier Academic Press, San Diego, CA

**Role: Co-senior investigator and mentor.** (This contribution was developed at ASU)

3. Page, R.E., Linksvayer, T. and **Amdam, G.V.** (2009) Social life from solitary regulatory networks: a new paradigm for insect sociality. *In*: *Organization of Insect Societies*, Gadau, J., Fewell, J. (Eds.), Harvard University Press, Cambridge MA
**Role: Co-senior investigator** (The chapter was written at ASU)

2. **Amdam, G.V.** and Rueppell O. (2006) Models of aging in honey bee workers. In: *Handbook of Models for Human Aging*, Conn, P.M. (Ed.), Academic San Diego, pp. 267-276
**Role: Senior investigator.** (This contribution was developed in collaboration with Rueppell at the University of North Carolina. I was then at the University of Davis as a visiting scholar)

1. **Amdam, G.V.** (2005) Social control of aging and frailty in bees. In: *Longevity and Frailty*, Carey, J.R., Robine, J.-M., Michel, J.-P., Christen, Y. (Eds.), Springer-Verlag Berlin, pp. 17-26
**Role: Senior investigator.** (I wrote this chapter as a visiting scholar at the University of California, Davis)

**Invited Seminar & Symposium Presentations** (each entry is an invited lecture, unless otherwise noted)

2000: Centre for Regulatory Biology and Non-linear Dynamics, Oslo, Norway
2001, 2002: Department of Genetics, University of São Paulo, Ribeirao Preto, Brazil
2001-2003: Annual symposia, Scandinavian Bee Research, Norway/Sweden/Denmark
2002: VIIth International Symposium for Biochemical System Theory: From phenotype to genotype and back, Averøya, Norway, selected presentation
2003: 39th Congress, Biochemical Society of Norway, Geilo, Norway, selected presentation
2004: Research Workshop on Longevity, Duke University, Durham, NC
2004: Humboldt University, Graduate College invitee, Berlin, Germany
2004: Wissenschaftskolleg zu Berlin, Berlin, Germany, workgroup participant
2004: Foundation IPSEN, Paris, France
2004: Max Planck Institute of Demography, Rostock, Germany
2004: Santa Fe Institute of Complex Studies Workshop, Würzburg, Germany
2004: International Union for the Study of Social Insects, North American Section Meeting, Tonto Creek Camp, AZ, selected presentation
2004, 2005: Department of Demography, University of California, Berkeley, CA
2004: Department of Entomology, University of California, Davis, CA
2005: School of Life Sciences, Arizona State University, Tempe, AZ
2005: BeeSpace Annual Workshop, University of Illinois, Urbana-Champaign, IL, panelist
2005: Animal Behavior Society, Annual Meeting Symposium, Salt Lake City, UT
2005: Evolutionary Demography Meeting, University of Virginia, VA
2006: Department of Animal Science, Norwegian University of Life Sciences, Aas, Norway
2006: Center for Social Dynamics and Complexity, Arizona State University, Tempe, AZ
2006: VII Encontro de Abelhas, University of São Paulo, Ribeirao Preto, Brazil
2006: International Union for the Study of Social Insects, International Conference, Washington D.C., plenary lecture
2006: International Union for the Study of Social Insects, International Conference, Washington D.C., invited seminar presentation
2006: Department of Entomology, Texas A&M University, College Station, TX
2007: University of Arizona, Hexapodium meeting, Tucson, AZ
2007: Cold Spring Harbor Laboratories, Honeybee Genome Meeting, Cold Spring Harbor, NY, presented by postdoc N. Mutti
2007: British Society for Research on Ageing, Liverpool, UK, presented by postdoc S-C. Seehuus
2007: Department of Zoology, University of Tel Aviv, Tel Aviv, Israel
2007: Department of Ecology, Evolution, and Behavior, Hebrew University of Jerusalem, Jerusalem, Israel
2007: Karolinska Institute, "What is Life" MTC series, Stockholm, Sweden
2007: Centre for Ecological and Evolutionary Synthesis, University of Oslo, Norway
2007: Department of Entomology, Kansas State University, Manhattan, KS

2007: Department Conservation Biology, Norwegian University of Life Sciences, Norway
2008: Gordon Research Conference, Genes and Behavior, Lucca, Italy
2008: Pew Foundation, Annual meeting for PEW Award Scholars, Aruba, Netherlands
2008: Department of Biology, McGill University, Montreal, Canada
2008: Norwegian Biochemical Society, Oslo, Norway
2008: Society for the Study of Evolution, Minneapolis, MN
2008: International Congress of Entomology (ICE), Durban, South Africa, symposium organizer and speaker
2008: VII Encontro de Abelhas, University of São Paulo, Ribeirao Preto, Brazil
2008: Rikshospitalet National Hospital, Oslo, conference symposium organizer, presented by postdoc Daniel Müench
2008: Department of Entomology, University of Arizona, Tucson, AZ
2008: Department of Molecular, Cell and Developmental Biology, University of California, Santa Cruz, CA
2008: Norwegian Parliament, Ministry of Education and Research, Oslo, Norway, plenary address
2009: Strategic meeting – Consolidation of merger; Norwegian University of Life Sciences, Veterinary Collage, and Institute of Veterinary Medicine, plenary address (" – visions and ambitions), panel member, Soria Moria, Oslo, Norway
2009: Arizona State University, Tempe, AZ, Darwinfest Radical Thinkers Panel
2009: Gordon Research Conference, Biology of Aging, Ventura, CA
2009: Department of Medicine Molecular Biology & Genetics, Johns Hopkins University, Epigenetic Center, Baltimore MD
2009: University of Texas Health Science Center, San Antonio, TX
2009: Zoological Institute, University of Basel, Basel, Switzerland
2009: Gordon Research Conference, Ecological and Evolutionary Functional Genomics, Tilton, NH
2009: Frontiers in Social Behavior, NSF Workshop, Santiago, Chile, presented by PhD student Adam Dolezal
2009: Forskningens Festaften (National Science Award Ceremony, Research Council of Norway, Oslo, Norway, plenary address
2010: Department of Biology, University of Copenhagen, Copenhagen, Denmark
2010: Scandinavian Club, Paradise Valley, AZ
2010: Department of Physics, Center for Biological Physics, 'Chalk board talk' Arizona State University, Tempe, AZ
2010: Department of Entomology, University of Kentucky, Lexington, KY
2010: 'Last Lecture', honorary, Arizona State University, Tempe, AZ
2010: University of Bonn, Nutritional Homeostasis Workshop, Bonn, Germany
2010: Free University of Berlin, Berlin Germany, International Symposium in Honeybee Neuroscience, speaker and moderator
2010: FEBS World Congress, Göteborg, Sweden
2010: International Union for the Study of Social Insects, International Congress, Copenhagen, Denmark, speaker and roundtable discussion organizer
2010: University of Texas Health Care Center, San Antonio, TX
2010: NESCent Catalysis Meeting, National Evolutionary Synthesis Center, Durham, NC, panelist
2010: Rikshospitalet National Hospital, Oslo, Norway
2011: Forward to Professorship Conference, Faculty Women's Association, Arizona State University, Tempe, AZ
2011: Department of Biomedicine, University of Bergen, Norway
2011: Pew Charitable Trust, Annual meeting for PEW Award Scholars, Cozumel, Mexico
2011: Department of Sociobiology and Behavioral Physiology, University of Würzburg, Würzburg, Germany
2011: Cold Spring Harbor Laboratory, Honey Bee Genomics and Biology Workshop, speaker and moderator, Physiology and Development symposium, Cold Spring Harbor, NY

2011: Cold Spring Harbor Laboratory, Honey Bee Functional Genomics Tools, speaker and organizer, Cold Spring Harbor, NY
2011: Science Communication, "Pimp Your Research" lecture series, University of Oslo, Norway
2011: Buck Institute on Aging, Longevity Consortium, San Rafael, CA
2012: Norwegian Biochemical Society, Winter meeting, Storefjell, Norway, plenary lecture
2012: Vestby videregående skole (gymnasium/high school), Vestby municipality, Norway, on the future of education, innovation, science and technology
2012: Faculty Women's Association Leadership Summit, panelist, Arizona State University, Tempe, AZ
2012: Cafe Scientifique, Vitenskapskafeen/Oslo International Club, speaker, Oslo, Norway
2012: British Society for Research in Ageing scientific meeting, keynote speaker, Birmingham, UK
2012: 1st Joint Congress on Evolutionary Biology, Ottawa, Canada, presented by postdoc Heli Havukainen
2012: EurBee 2012, physiology symposium, Halle, Germany, presented by postdoc Daniel Münch
2013: Behaviour 2013, Symposium: Behavioural changes with advancing age: strategies and constraints. Newcastle, UK, presented by postdoc Daniel Münch
2013: Molde public library, PLASSEN and Molde Videregående Skole (gymnasium), Norway
2013: Arizona Science Center, Phoenix, presented by graduate student Jonathan Bobek
2013: Opportunities and challenges for healthier eating in Norway, Workshop by the Food Ecology initiative, Norwegian Centre for Advanced Study, Oslo. Organizer
2013: Tampering with your gut bacteria: really smart or really frightening? Seminar by the Food Ecology initiative, Norwegian Centre for Advanced Study, Oslo. Organizer
2014: NMBU Adamstuen, Norwegian Veterinary College, Norway
2014: TINE Meieriet Oslo, Kalbakken, (Norway's largest dairy producer), section for innovation and design, Norway
2014: Norwegian Student Society, Oslo, Norway
2014: Unconventional Model Animals in Food & Health, Workshop by the Food Ecology initiative, Norwegian Centre for Advanced Study, Oslo. Norway, Organizer
2014: Foods through the ages, Seminar by the Food Ecology initiative, Norwegian Centre for Advanced Study, Oslo Norway. Organizer
2014: Are you what you eat? Seminar by the Food Ecology initiative, Norwegian University of Life Sciences, Norway Organizer
2014: Pimp your research. Invited lecture, Norwegian University of Life Sciences, Media relations
2014: Norwegian Centre for Advanced Study, Oslo Norway. Lunch seminar lecture
2014: The City of Molde, Bjørnsonhuset Norway. Speech to the audience of the Molde Ambassador ceremony.
2015: Department of Behavioral Physiology & Sociobiology (Zoology II), University of Würzburg, Germany.
2015: Institute of Neuroscience, University of Newcastle, U.K.
2015: National Library, University of Oslo, Norway
2015: Food Alliance, Norwegian University of Life Sciences, Norway
2016: Biodesign Institute, Arizona State University
2016: I was invited to speak at 2016 EU IUSSI Congress in Helsinki, 2016 ICE Conference in Orlando, 2016 SETAC/iEOS Joint focused topic Meeting on Environmental and Ecotoxicological Omics and Epigenetics in Ghent, the 2016 Robert E. Page Symposium in Tempe, the 2017 meeting of the European Society for Evolutionary Biology (ESEB) in Groningen. I declined due to family reasons.
2017: Foods of Norway, Norwegian University of Life Sciences, Norway
2017: Pimp Your Research, Norwegian University of Life Sciences, Norway
2017: The Marin beekeepers meeting, Marin CA
2017: I was invited to speak at the 2018 International IUSSI 18th Congress in Guarujá Brazil, at the Department of Entomology at Texas A&M, at the Department of Entomology University of

California Davis, and at the 8th Congress of Apidology EurBee in Ghent, Belgium. I declined due to family reasons.

**Sample of Media Coverage**
(out of >5,000)

Arizona Republic, azcentral, February 23. 2017
http://www.azcentral.com/story/sponsor-story/arizona-state-university/2017/02/23/asu-honeybee-decline-threat-to-global-food-supply/98301512/

Arizona Highways March 2016, *Let Them Bee*, pages 26-33

Washington Post. 07.31.2015.
http://www.washingtonpost.com/news/speaking-of-science/wp/2015/07/31/bees-naturally-vaccinate-their-babies-scientists-find/

Upworthy. 08.05.2015.
http://www.upworthy.com/scientists-just-made-a-major-bee-vaccination-breakthrough-heres-why-its-such-a-big-deal

KJZZ Radio 91.5 08.04.2015. http://kjzz.org/content/174297/asu-research-reveals-how-bees-vaccinate-their-babies

Deutschlandfunk (German public radio) 15.09.2015.
http://www.deutschlandfunk.de/tiermedizin-impfung-fuer-bienen.676.de.html?dram:article_id=331216

Popular Science, How it works 04.10.2013.
http://www.popsci.com/science/article/2013-03/honeybee-society

*Skavlan. 10.11.2013. Largest talk show in Scandinavia. http://skavlan.com/en*
https://www.youtube.com/watch?v=bsPGrLC6bkA Part 1
https://www.youtube.com/watch?v=JC0NZqM_Kc8 Part 2

*Arizona Republic* A-1 story, carried to A-9, two photos, July 3rd, 2012
http://www.azcentral.com/arizonarepublic/news/articles/2012/06/27/20120627asu-bee-study-new-social-interactions-heal-older-brains.html

*CBS Sunday Morning* (aired July 8th, 2012)
http://www.cbsnews.com/8301-3445_162-57468191/can-bees-lead-to-a-longer-human-life-span/?tag=showDoorLeadStoriesAreaMain;SunMoLeadHero (interview with Dr. Gro Amdam)

*Huffington Post* (online July 5th, 2012)
http://www.huffingtonpost.com/2012/07/05/bee-brains-reversal-aging-related-decline_n_1651085.html

Scientific American 10.28.2010 http://www.scientificamerican.com/article/old-and-wise/