

Alan A. Cohen

Curriculum Vitae

Affiliations

Principal affiliation

Associate professor and researcher
Département de médecine de famille
Université de Sherbrooke
3001 12e Avenue Nord,
Sherbrooke (Québec) J1H 5N4
Canada
Tel: (819) 821-8000 # 72590
Fax: (819) 564-5386
Email: Alan.Cohen@USherbrooke.ca
Website: alancohen.recherche.usherbrooke.ca

Other affiliations

Researcher

Groupe de recherche PRIMUS, Centre de
recherche - CHUS
(<https://primus.recherche.usherbrooke.ca/>)

Centre de recherche sur le vieillissement
<http://cdrv.csss-iugs.ca/home>

Research Profile

- Research Disciplines: Biology, Ecology and Evolution, Epidemiology and Biostatistics.
- Areas of Research: Aging Studies, Biostatistics, Demography, Ecology, Epidemiology, Physiology, Health Disparities, Public Health.

Education

- 2001-2007 University of Missouri-St. Louis, Ph.D in Biology, Dr. Robert Ricklefs, Advisor. Thesis: The Role of Antioxidants in the Physiology, Ecology, and Life Histories of Wild Birds.
- 1996-1999 University of Michigan, Ann Arbor. B.S. summa cum laude in Biology and Asian Studies.
- 1993-1994 Rice University, Houston, TX.
- 1991-1993 Interlochen Arts Academy, Interlochen, MI. Creative Writing major.

Professional Employment

- 2016/06 - present Associate professor, Faculté de médecine et des sciences de la santé, Université de Sherbrooke.
- 2010/09 – 2016/05 Assistant professor, Faculté de médecine et des sciences de la santé, Université de Sherbrooke.
- 2010/02-2010/08 Post-doctoral fellow, Groupe de recherche PRIMUS, Centre Hospitalier Universitaire de Sherbrooke.
- 2008-2010 Post-doctoral fellow in biostatistics, Centre for Global Health Research, St. Michael's Hospital, Toronto, Ontario.

2007-2008 Post-doctoral research fellow, NIA training grant for Epidemiology and Biostatistics of Aging, Center on Aging and Health, Johns Hopkins University, Baltimore, Maryland.

Distinctions and Awards

- Chercheur-boursier Senior (rank: 1 of 10), Fonds de la recherche en santé du Québec ; 07/2020 - 06/2024; 250,386\$;
- Fellow, Gerontological Society of America, Biological Sciences section (2018);
- CIHR Institute of Aging New Investigator Prize of Excellence in Research on Aging (2014);
- CIHR New Investigator Salary Award, Canadian Institutes of Health Research; 07/2015 - 06/2020; \$300,000.
- Chercheur-boursier Junior 1 (rank: 1 of 29), Fonds de la recherche en santé du Québec ; 06/2012-05/2016; \$235,698.
- Howard Hughes Medical Institute Predoctoral Fellowship Research award; 06/2002-04/2007; \$187,500.
- National Science Foundation Predoctoral Fellowship (2002, declined)
- University Fellowship, University of Missouri-St. Louis; 08/2001 - 07/2003; \$32,000.

Editorial Activities

2020 - present	Member, Editorial Board, <i>Mechanisms of Ageing and Development</i>
2019 - present	Editor (with Dan Belsky), <i>Quantifying Aging Biology</i> , edited book to be published by Karger
2020 - present	Editor (with Joris Deelen and Owen Jones), Research Topic in <i>Frontiers in Cell and Developmental Biology</i> , “Interdisciplinary Approaches to Aging Biology”
2019 - 2020	Editor (with Tamas Fulop), <i>Mechanisms of Ageing and Development</i> Special Issue, “Biology of Aging Symposium: Understanding aging to better intervene”
2019 - present	Member, Editorial Board, <i>Immunity and Aging</i>
2018 - present	Member, Editorial Board, <i>Journal of Gerontology: Biological Sciences</i>
2014 - present	Review Editor, <i>Frontiers in Ecology and Evolution</i> (Behavioral and Evolutionary Ecology)
2009-2010	Co-editor (with Kevin McGraw, David Constantini, and Peeter Hörak), <i>Functional Ecology</i> Special Issue, “The Ecology of Antioxidants & Oxidative Stress in Animals”

Peer Review Committees

2019 - present	Fellows selection committee member, <i>Gerontological Society of America</i> , Biological Sciences Section
2017 - present	Member, College of Reviewers, <i>Canadian Institutes of Health Research</i>

February 2020	NIH Panel Special Emphasis Panel – New NIA grant program review, “Characterization of Marmosets as Models of Aging and Age-Related Diseases” (5 proposals reviewed)
2014 - 2020	Review committee member, Health Research Training A – Post-PhD (HTA), <i>Canadian Institutes of Health Research</i> (29 proposals reviewed)
December 2019	External reviewer, Canada Research Chairs (1 proposal reviewed)
December 2017	External reviewer, Velux Stiftung Foundation (1 proposal reviewed)
November 2017	Review committee member, Quebec-Flanders bilateral research cooperation program, <i>Fonds de recherche du Québec</i> (11 proposals reviewed)
2013-2014	Review committee member, Health Research Training A – PhD (HTA), <i>Canadian Institutes of Health Research</i> (11 proposals reviewed)
July 2012	External reviewer, China-Canada Joint Health Research Initiative Grants Program, <i>Canadian Institutes of Health Research</i> (1 proposal reviewed)

Memberships and Affiliations

June 2019 - present	Active member, <i>Quebec Research Network on Aging</i>
April 2019 - present	Associate member, <i>Réseau de médecine génétique appliquée</i> (Québec)
May 2014 - present	Regular researcher, <i>Quebec Center for Biodiversity Science</i>

Peer review of articles

Regular peer review of scientific publications (113 in career, mean of 14 per year for the last 5 years), including in prestigious journals such as *Science*, *Nature Communications*, *Biological Reviews*, *Aging Cell*, *Trends in Ecology and Evolution*, *Ecology Letters*, and *Nature Ecology & Evolution*.

Research Funding

As Principal investigator

- The Long-Term Effects of War on Biological Aging: The Case of Vietnam; CIHR-Project Grant; 04/2021-03/2025; 1,250,776\$.
- Démystifier l'écosystème immunitaire afin de protéger la santé et l'environnement; FRQ Intersectorial AUDACE program; 04/2019-03/2021; 100,000\$.
- The role of physiological complexity in aging and evolution; NSERC - Discovery Grants Program - Individual; 04/2018-03/2023; 200,000\$.
- Diet, physiological dysregulation, and aging: understanding longitudinal links through trajectory analysis; CIHR-Project Grant; 04/2017-03/2022; 1,090,125\$.
- Toward a clinically applicable characterization of sex differences in biological aging; CIHR- Catalyst Grant: Sex as a Variable in Biomedical or Translational Research; 04/2016-03/2018; \$149,452.
- Plateforme pour l'analyse de biomarqueurs dans la recherche sur le vieillissement; Centre de recherche sur le vieillissement – CSSS-IUGS; 03-2015/03-2016; \$75,000.

- Diet, physiological dysregulation, and aging: understanding longitudinal links through trajectory analysis; CIHR-Bridge Funding; 10-2014/03-2015; \$100,000.
- Innovative analysis of large data sets: bringing researchers and data together to understand complexity; 12/2013-12/2014; \$75,000.
- Understanding the physiology of aging by modeling longitudinal changes in networks of biomarkers in humans; CIHR- Operating Grant; 04/2012-03/2015; \$330,546.
- Novel approaches to aging physiology: Using statistics and data mining to understand dysregulation of biomarker networks in human populations; CIHR - Operating Grant: Advancing Theoretical and Methodological Innovations; 03/2012-02/2015; \$193,482.
- Comprendre la physiologie du vieillissement par la modélisation longitudinale des changements dans les réseaux de biomarqueurs chez l'humain (Ranked 1st in committee); FRQS; 06/2012-06/2016; \$45,000.
- Characterization of physiological systems: biomarkers and statistical methods to measure changes in physiology across time and species; NSERC - Discovery Grants Program -Individual; 04/2011 - 03/2017; \$120,000.
- Infrastructure statistique; Centre de recherche sur le vieillissement; 04/2012-03/2013; \$19,349.
- Understanding the physiology of aging and chronic disease by modeling longitudinal changes in networks of biomarkers in humans; CIHR - INMD: Bridge funding; 03/2011 -02/2012; \$100,000.

As co- investigator

- Specificity within olfactory dysfunction in aging and neurodegenerative diseases and translation into diagnosis and therapy. Centre de recherche sur le vieillissement, 04/2021-05/2022; 20,000\$ (Principal investigator: Rona Graham).
- Intégrer les données d'approches « omiques » et d'ergocycles connectés pour une prise en charge optimisée et personnalisée des aînés en milieu clinique: Une preuve de concept du consortium iDOSE. Centre de recherche sur le vieillissement, 04/2021-05/2022; 20,000\$ (Principal investigator: Eléonor Riesco).
- Using statistical modeling and data analysis methods to study the homeostatic dysregulation of biomarker networks (使用统计建模及数据分析方法研究生物标记物网络的稳态失调问题). National Natural Science Foundation of China, 01/2021 – 12/2024; 320,000 RMB (~62 745\$ CAD) (Principal investigator: Qing Li).
- Bâtir dans l'adversité : développement d'une approche de détection algorithmique pour l'identification de menaces infectieuses. Fondation du CHUS, 06/2020-06/2021; 25,000\$ (Principal investigator: Louis Valiquette).
- Peut-on utiliser un seul biomarqueur pour l'évaluation du risque de survenue de l'infarctus du myocarde de chez la personne âgée? L'exemple de la troponine à haute sensibilité. Concours Initiatives stratégiques du Centre de recherche sur le vieillissement 2019-2020; 04/2019-03/2020; 20,000\$ (Principal investigator: Abdelouahed Khalil).

- Health-age: a composite biomarker measure to estimate healthy aging in older Canadians. The Institute of Aging – Catalyst – IRSC; 04/2019-03/2020; 69,850\$ (Principal investigator: Chris P. Verschoor).
- NuAge: une cohorte unique pour l'étude des trajectoires de vieillissement selon une perspective globale et multidimensionnelle. FRQ Plateform of funding programs for intersectoral research on aging – Cohort component; 04/2019-03/2024; 1,500,000\$ (Principal investigator: N. Presse).
- Rupture avec l'âgisme: co-construction d'un plan d'action intersectoriel favorisant une santé, une valorisation et une participation sociale accrues des Québécois vieillissants. FRQ Plateform of funding programs for intersectoral research on aging – AUDACE component; 04/2019-03/2021; 100,000\$ (Principal investigator: M. Levasseur).
- Les causes et les conséquences du dysfonctionnement olfactif dans la maladie de Huntington. Concours Initiatives stratégiques du Centre de recherche sur le vieillissement 2019-2020; 20 000 \$ (Principal investigator: R. Graham).
- Nouveau paradigme dans la pathogenèse de la maladie d'Alzheimer: peut-être d'origine infectieuse? Concours Initiatives stratégiques du Centre de recherche sur le vieillissement 2017-2018; \$20,000 (Principal investigator: T. Fulop).
- Integrating large scale microbiome signatures from patients to predict cancer and metabolic diseases. 2015/07-2017/06; \$250,000 (Principal investigator: É. Massé).
- Caractéristiques environnementales favorisant la participation sociale : développement d'un outil d'intervention adapté aux particularités de la population québécoise vieillissante; FRQSC; 2014/04-2017/03; \$150,000 (Principal investigator: M. Levasseur).
- The alternative proteome: a new paradigm in translational research and personalized medicine; Merck – Programme interne; 2014/07-2016/06; \$250,000 (Principal investigator: X. Roucou).
- Le sexe et l'âge du patient devraient-ils être pris en compte dans le choix d'un antipsychotique?; CIHR; 04/2014 – 03/2016; \$144,933 (Principal investigators: A. Vanasse and L. Blais).
- Mécanismes responsables du déclin des oiseaux insectivores aériens soumis à l'intensification agricole: le cas de l'Hirondelle bicolor; FQRNT; 04/2012 - 03/2015; \$265,282 (Principal investigator: M. Belisle).
- Études appliquées à la relation maladies cardiovasculaires-météorologie/climat au Québec; MSSS (Québec); 04/2011-03/2015; \$901,000 (Principal investigator: F. Chebana).
- Faire-face Aux Changements Ensemble (FACE) : Mieux s'adapter aux Changements Climatiques au Canada et en Afrique de l'Ouest dans le domaine des ressources en eau; CIHR; 04/2011 -03/2016; \$1,250,000 (Principal investigator: T. Ouarda).

Supervisory Experience

Professor mentoring

- F. Guillaume Blanchet (July 2020 – July 2022, University of Sherbrooke)
- Manon Guay (October 2019 – October 2022, University of Sherbrooke)
- Nancy Presse (September 2018 – September 2021, University of Sherbrooke)

Visiting researcher

- Oldrich Tomasek (July 2018 – January 2019, Institute of Vertebrate Biology of the Czech Academy of Sciences, Czech Republic), subject: International collaboration in ecological and evolutionary biology of vertebrates.

Post-doc fellows

- Sewanou Hermann Honfo (January 2021 – present, director: Alan Cohen, co-directors: Félix Camirand Lemyre and Marie Beauséjour), subject: Diet, physiological dysregulation, and aging: understanding longitudinal links through trajectory analysis.
- Francis B. Lavoie (December 2019 – present, director: Alan Cohen), subject: Algorithm development for human aging identification and quantification improvement.
- F. Guillaume Blanchet (June 2019 – July 2020, director: Dominique Gravel, co-director: Alan Cohen), subject: Development of statistical methods to better understand the immune system holistically using hierarchical models, current position: Assistant Professor, Université de Sherbrooke.
- Ahmed Ghachem (April 2018 – August 2019, director: Alan Cohen), subject: Epidemiology, biostatistics, and health of older people, current position: Scientific professional in medico-administrative data management and analysis, Institut national d'excellence en santé et en service sociaux.
- Julies Landes (November 2017 – June 2019, directors: Alan Cohen, Fanie Pelletier), subject: Study of senescence in wild animal populations and humans, current position: Project Manager - Biologist, Conseil du bassin versant de la région de Vaudreuil-Soulanges.
- Marie Brunet (January 2016 – October 2020, co-director: Alan Cohen, director: Xavier Roucou), subject: Étude de l'évolution et de la fonction des protéines alternatives.
- Valérie Jarry (January 2015 – October 2017, directors: Alan Cohen, Hélène Payette), subject: Influences de l'alimentation et du contexte socioéconomique dans la dérégulation physiologique et le vieillissement, current position: Research professional, Montréal West Island Integrated University Health and Social Services Centre, Douglas Mental Health University Institute.
- Clarence Schmitt (January – April 2017, co-director: Alan Cohen, director: Fanie Pelletier), subject: Eco-physiology: where are we now and where are we going next, current position: Temporary lecturer and research assistant, Université Pierre et Marie Curie.
- Maimouna Bagna (April 2014 – June 2017, director: Alan Cohen), subject: Utilisation des méthodes de forage de données pour comprendre la complexité du processus du vieillissement.
- Jean-François Noël (Molecular biology, August 2014 – December 2014, co-director: Alan Cohen, director: Xavier Roucou), subject: The alternative proteome: a new paradigm in translational research and personalized medicine, current position: Lab director, PhenoSwitch Bioscience.
- Patrick Bergeron (September 2013 – August 2014, director: Alan Cohen, co-director: Alain Vanasse), subject: Applied studies on cardiovascular diseases and meteorology/climate relationship in Quebec, current position: Assistant professor, Department of Biological Sciences, Bishop's University.

- Qing Li (February 2013 – December 2015, director: Alan Cohen, co-director: Shengrui Wang), subject: Informatics and statistics of aging biology through biomarkers analysis, current position: Associate professor, School of Economics and Management, Xinjiang University.
- Emmanuel Milot (July 2012 – June 2014, director: Alan Cohen), subject: Aging mechanisms study from longitudinal human population data: Physiological dysregulation hypothesis testing, current position: Professor, Department of Chemistry, Biochemistry and Physics, Université du Québec à Trois-Rivières.
- André Ngamini Ngui (January 2011 – August 2012, director: Alain Vanasse, co-director: Alan Cohen), subject: Schizophrenia spatial modeling in Quebec: A GWR approach, former position (deceased): Associate professor, Department of Psychology, Université du Québec à Montréal.

Graduate students

- Helen Huang (MSc student, September 2019 – present, co-director: Alan Cohen, director Nancy Presse), subject: Déterminants du statut vitaminique B12 chez les personnes âgées en santé: données de la cohorte prospective NuAge.
- Guillaume Provost (MSc student, January 2018 – present, director: Alan Cohen, co-director: Tamàs Fülöp), subject: Study of cellular markers of exhausted and senescent immune cells.
- Frédéric Dufour (PhD student, September 2016 – present, director: Alan Cohen, co-director: Pierre-Étienne Jacques, *scholarship holder*), subject: Étude de la dérégulation des systèmes physiologiques dans le vieillissement; Approche bio-informatique.
- Vincent Morissette-Thomas (MSc student, January 2013 – November 2015, director: Taoufik Bouezmarni, co-director: Alan Cohen), subject: Multivariate analysis of inflammatory biomarkers to better characterize their impact on the aging process, current position: Statistical analyst, Collège de Bois-de-Boulogne.
- Mariem Fourati (MSc student, September 2012 – April 2015, director: Taoufik Bouezmarni, co-director: Alan Cohen, *scholarship holder*), subject: A method for the estimation of residual confusion effect on regression analyses.
- Francis Dusseault-Bélanger (MSc student, January 2011 – February 2013, director: Alan Cohen), subject: Principal component analysis as a biostatistic tool: A routine to study biomarkers structure, current position: Mathematics teacher, Cégep de Drummondville.

Undergraduate student trainees

- Cassandra Guillemette, Mathematics (University of Sherbrooke, May – August 2020).
- Marianne Malette, Ecology (University of Sherbrooke, May – August 2020).
- Amber Hewett, Computer Science (Bishops University, May – August 2020).
- Julien Corriveau-Trudel, Mathematics (University of Sherbrooke, Septembre – December 2019, co-supervisor).
- Charlie Cloutier-Langevin, Mathematics (University of Sherbrooke, Septembre – December 2019, co-supervisor).
- Marika Caouette, Ecology (University of Sherbrooke, Septembre – December 2019).

- Francisco Maria Scoccimarro, Computer science (University of Sherbrooke, Septembre – December 2019).
- Fatima Bouslimi, Biochemistry (Bishops University, May – August 2019).
- Mingxin Liu, Mathematics (Bishops University, May – August 2019).
- Alexandre Racine, Ecology (University of Sherbrooke, Septembre – December 2018).
- Nicolas Raymond, Mathematics (University of Sherbrooke, Januray – April 2018).
- Émy Roberge, Biology (University of Sherbrooke), September – December 2017).
- Gabriel Dansereau, Ecology (University of Sherbrooke), September – December 2017).
- Vincent-Daniel Girard, Biotechnology engineering (University of Sherbrooke, May – August 2017).
- Guillaume Provost, Biochemistry (University of Sherbrooke, May – August 2017).
- Jason Argouin, Ecology (University of Sherbrooke, January – April 2016).
- Michael Reddick, Physics (University of Sherbrooke, January – April 2016).
- Boureima Traore, Economics (University of Sherbrooke, January – April 2016).
- René St-Onge, Physics (University of Sherbrooke, January – April 2016).
- Olivier Germain, Mathematics (University of Sherbrooke, January – April 2016).
- Mélissa Paquet, Ecology (University of Sherbrooke, August – December 2015).
- Samuel Faucher, Physics (University of Sherbrooke, August – November 2013).
- Raphaëlle Mercier-Gauthier, Ecology (University of Sherbrooke, August – November 2013).
- Maxime Leroux, Economics (University of Sherbrooke, January – April 2013).
- Roxane Poirier, Ecology (University of Sherbrooke, January – April 2013).
- Ridha Louati, Computer science (University of Sherbrooke, September – December 2012).
- Jean-Louis Barnwell-Ménard, Economics (University of Sherbrooke, September – December 2012).
- Vincent Morissette-Thomas, Mathematics (University of Sherbrooke, September – December 2012).
- Marie Thuy Mai Dang, Pharmacology (University of Sherbrooke, September – December 2011).
- Jian Yong, Biostatistics, (University of Sherbrooke, May – August 2011).
- Claudia Barboni, Geomatics (University of Sherbrooke, May – July 2011).
- Francis Dusseault-Bélanger, Mathematics (University of Sherbrooke, May – August 2010).

Graduate trainees

- Thomas Gobeil (Physics MSc intern, University of Sherbrooke, September – December 2020), subject: Study of early warning signals of critical transition in human using septic shock data.
- Seyed Mahdi Sedighi (intern, Sherbrooke University, May – August 2019).
- Diana Leung (Foreign trainee, University of Sherbrooke, August 2017 – July 2018).
- Elise O'Carroll (Medicine student, University of Sherbrooke, July 2014 - May 2015), subject: Exploratory analysis of co-occurring diseases, current position: Practicing physician.

- Véronique Croteau (Biostatistics MSc intern, University of Sherbrooke, February – June 2011), subject: Graphical approaches to collinear data, current position: CÉGEP teacher.
- Liz Corson (MSc intern, Centre for Global Health Research, May – September 2009), subject: Trends in smoking by age and region in India.
- Peter Rodriguez (MSc intern, Centre for Global Health Research, January – April 2009), subject: GIS applications to malaria in India, current position: Research assistant.

Publications

Peer-reviewed Journal Articles

(Underlined name indicates student and HQP supervised by AAC)

1. Ghachem, A., Dufour, F., Fülöp, T., Gaudreau, P., **Cohen, A.A.** Effects of sex and physical activity level on serum biomarker-based physiological dysregulation: The impact to predict frailty and mortality in the Quebec NuAge cohort. *Gerontology* (Accepted January 2021).
2. Liu, M., Legault, V., Fülöp, T., Côté, A.M., Gravel, D., Blanchet, F.G., Leung, D.L., Lee, S.J., Nakazato, Y., **Cohen, A.A.** (2021). Prediction of mortality in hemodialysis patients using moving multivariate distance. *Frontiers in Physiology*, 12:612494. doi: 10.3389/fphys.2021.612494
3. **Cohen, A.A.**, Leblanc, S., Roucou, X. (2021). Robust physiological metrics from sparsely sampled networks. *Frontiers in Physiology*, 12:624097. doi: 10.3389/fphys.2021.624097
4. Fried, L.P., **Cohen, A.A.**, Xue, Q-L., Walston, J., Bandeen-Roche, K. (2021). The physical frailty syndrome: transition from symphony to cacophony. *Nature Aging*, 1:36-46. doi: 10.1038/s43587-020-00017-z
5. Verschoor, C.P., Belsky, D.W., Ma, J., **Cohen, A.A.**, Griffith, L.E., and Raina, P. (2021). Comparing biological age estimates using domain-specific measures from the Canadian Longitudinal Study on Aging. *Journal of Gerontology: Biological Sciences*, 76(2):187-194. doi: 10.1093/gerona/glaa151.
6. Naud, D., Généreux, M., Alauzet, A., Bruneau, J.F., **Cohen, A.**, Levasseur, M. (2021). Social participation and barriers to community activities among middle-aged and older Canadians: Differences and similarities according to gender and age. *Geriatrics & Gerontology International*, 21(1):77-84. doi: 10.1111/ggi.14087
7. Ghachem, A., Fried, L.P., Legault, V., Bandeen-Roche, K., Presse, N., **Cohen, A.A.** (2021). The frailty syndrome as an emergent state of parallel dysregulation in multiple physiological systems. *Biogerontology*, 22(1):63-79. <https://doi.org/10.1007/s10522-020-09903-w>
8. Pawelec, G., Bronikowski, A., Cunnane, S.C., Ferrucci, L., Franceschi, C., [...] **Cohen, A.A.** (2020). The conundrum of human immune system “senescence”. *Mechanisms of ageing and development*, 192: 111357. doi: 10.1016/j.mad.2020.111357.
9. Fülöp, F., Desroches, M., **Cohen, A.A.**, Santos, F.A.N., Rodrigues, S. (2020). Why we should use Topological Data Analysis in Ageing: towards defining the “Topological shape of ageing”. *Mechanisms of Ageing and Development*, 192:111390. doi: 10.1016/j.mad.2020.111390
10. **Cohen, A.A.**, Legault, V., Fulop, T. (2020). What if there’s no such thing as “aging”? *Mechanisms of Ageing and Development*, 192:111344. doi: 10.1016/j.mad.2020.111344

11. **Cohen, A.A.**, Kennedy, BK., Anglas, U., Bronikowski, AM., Deelen, J., Dufour, F., Ferbeyre, G., Ferrucci, L., Franceschi, C., Frasca, D., Friguet, B., Gaudreau, P., Gladyshev VN., Gonos, ES., Gorbunova, V., Gut, P., Ivancheko, M., Legault, V., Lemaître, J-F., Lontis, T., Liu, G-H., Liu, M., Maier, AB., Nobrega, OT., Rikkert, M., Pawelec, G., Rheault, S., Senior, AM., Simm, A., Soo, S., Traa, A., Ukraintseva, S., Vanhaelen, Q., Raamsdonk, J., Witkowski, J., Yashin, A., Ziman, R., Fulop, T. (2020). Lack of consensus on an aging biology paradigm? A global survey reveals an agreement to disagree, and the need for an interdisciplinary framework. *Mechanisms of Ageing and Development*, 191:111316. doi: 10.1016/j.mad.2020.111316.
12. Fulop, T., Larbi, A., Hirokawa, K., **Cohen, A.A.**, Witkowski, J.M. (2020). Immunosenescence is both functional/adaptive and dysfunctional/maladaptive. *Seminars in Immunopathology*, 42(5):521-536. <https://doi.org/10.1007/s00281-020-00818-9>
13. **Cohen, A.A.**, Levasseur M, Raina P, Fried LP, Fülöp T. (2020). Is aging biology ageist? *Journal of Gerontology: Biological Sciences*, 75(9): 1653-1655. doi: 10.1093/gerona/glz190.
14. Nakazato, Y., Sugiyama, T., Ohno, R., Shimoyama, H. Leung, D., **Cohen, A.**, Kurane, R., Hirose, S., Watanabe, A., Shimoyama, H. (2020). Estimation of homeostatic dysregulation and frailty using biomarker variability: a principal component analysis of hemodialysis patients. *Scientific Reports*, 10:10314. doi: 10.1038/s41598-020-66861-6.
15. Renaud, L.-A., Rousseu, F., Blanchet, F.G., **Cohen, A.A.**, Festa-Bianchet, M., Pelletier, F. (2020). Milk composition in a wild mammal: a physiological signature of phenological changes. *Oecologia*, 193: 349-358. doi: 10.1007/s00442-020-04684-y.
16. Möller, S., Saul, N., **Cohen, A.A.**, Köhling, R., Sender, S., Escobar, H.M., Junghanss, C., Cirulli, F., Berry, A., Antal, P., Adler, P., Vilo, J., Boiani, M., Jansen, L., Repsilber, D., Grabe, H.J., Struckmann, S., Barrantes, I., Hamed, M., Wouters, B., Schoofs, L., Luyten, W., Fuellen, G. (2020). Healthspan pathway maps in *C. elegans* and humans highlight transcription, proliferation/biosynthesis and lipids. *Aging*, 12(13): 12534-12581. doi: 10.18632/aging.103514.
17. **Cohen, A.A.**, Coste, C., Li, X-Y, Bourg, S., and Pavard, S. (2020). Are trade-offs really the key drivers of aging and lifespan? *Functional Ecology*, 00: 1-14. doi: 10.1111/1365-2435.13444.
18. Fülöp, T., Larbi, A., Abdelouahed, K., **Cohen, A.A.**, Witkowski, JM. (2019). Are we ill because we age? *Integrative Physiology*, 10:1508. doi: 10.3389/fphys.2019.01508.
19. Hägg, S., Belsky, D.W. **Cohen, A.A.** (2019). Developments in Molecular Epidemiology of Aging. *Emerging Topics in Life Sciences*, 3(4): 411-421.
20. Fuellen, G., Jansen, L., **Cohen, A.A.**, Luyten, W., Gogol, M., Simm, A., Saul, N., Cirulli, F., Berry, A., Antal, P., Köhling, R., Möller, S. (2019). Health and Aging: Unifying Concepts, Scores, Biomarkers and Pathways. *Aging and Disease*, 10(4): 883-900.
21. Wey, T.W., Roberge, É., Legeault, V., Kemnitz, J.W., Ferrucci, L., **Cohen, A.A.** (2019). An emergent integrated aging process conserved across primates. *Journals of Gerontology: Biological Sciences*, 74(11): 1689-1698.
22. Renaud, L.A., Blanchet, G.F., **Cohen, A.**, Pelletier, F. Causes and short-term consequences of variation in milk composition in wild sheep. *Journal of Animal Ecology*, 88(6): 857-869.

23. Dansereau, G., Wey, T.W., Legault, V., Brunet, M.A., Kemnitz, J.W., Ferucci, L., **Cohen, A.A.** (2019). Conservation of physiological dysregulation signatures of aging across primates. *Aging Cell*, 18(2): e12925.
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Book Chapters

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Report

1. Vanasse, A., Blais, L., **Cohen, A.A.**, Roberge, P., Delorme, A., Lesage, A., Fleury, MJ., Grignon, S., St-Laurent, D. Le sexe et l'âge du patient devrait-ils être pris en compte dans le choix d'un antipsychotique. Rapport final de recherche, IRSC, septembre 2018.
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Presentations

Refereed Conference Presentations

1. **Cohen, A.A.**, Senior, A.M. et al. Nutrient Intake Patterns Predict Homeostatic Dysregulation in an Older Quebec Population. GSA 2020 Annual Scientific Meeting, Online, November 4-7, 2020. (Oral)
2. **Cohen, A.A.** Quantifying the state and dynamics of sparsely sampled biological networks to understand aging. Tenth International Conference on Complex Systems (ICCS) Virtual Conference, July 28, 2020. (Oral)
3. **Cohen, A.A.**, Wey, T.W., Dansereau, G., Roberge, E., Legault, V., Brunet, M., Kemnitz, J.W., Ferrucci, L. Conservation of integrative physiological aging mechanisms across primates. GSA 2019 Annual Scientific Meeting, Austin, TX, November 13-17, 2019. (Oral)
4. **Cohen, A.A.**, Nakazato, Y., Sugiyama, T., Leung, D.L., Legault, V., Côté, A-M. Increased Physiological Variability Predicts Declining Health and Critical Transitions in Hemodialysis Patients. GSA 2019 Annual Scientific Meeting, Austin, TX, November 13-17, 2019. (Oral)
5. Liu, M., Legault, V., Bouslimi, F., Leung, D.L., Fulop, T., Côté, A.M., Nakazato, Y., **Cohen, A.** Comparison of approaches to measure physiological variability in hemodialysis patients. Third edition of the Biology of Aging International Symposium: Understanding Aging to Better Intervene, Montreal, November 9-11, 2019. (Poster)
6. Provost, G., **Cohen, A.**, Ferrucci, L., Fried, L.P. A comparison of biological aging measures. Third edition of the Biology of Aging International Symposium: Understanding Aging to Better Intervene, Montreal, November 9-11, 2019. (Poster)
7. Dufour, F., Jacques, P.E., Cohen, A. Dysregulation patterns of gene expression with age differ across datasets (prize: best poster). Third edition of the Biology of Aging International Symposium: Understanding Aging to Better Intervene, Montreal, November 9-11, 2019. (Poster)

8. Dufour, F., Jacques, P.E., **Cohen, A.A.** Physiological Dysregulation During Aging: a Gene Expression Analysis. Gordon Research Seminar on Biology of Aging, Newry, ME, July 13, 2019. (Oral)
9. **Cohen, A.A.**, Dufour, F., Jacques, P.E. Broad-scale, multi-system dysregulation of gene expression: Toward clinical quantification of aging. GSA 2018 Annual Scientific Meeting, Boston, MA, November 14-18, 2018. (Oral)
10. Leung, D.L., **Cohen A.A.** Measuring loss of homeostasis during aging. Ninth International Conference on Complex Systems, Cambridge, MA, July 24, 2018. (Oral)
11. Dufour, F., Jacques, P.E., **Cohen, A.A.** Mahalanobis Distance as a Proxy for Physiological System Dysregulation: Application to Expression Data. Ninth International Conference on Complex Systems, Cambridge, MA, July 23, 2018. (Oral)
12. **Cohen, A.A.**, Dusseault-Bélanger, F., Morissette-Thomas, V., Leung, D.L., Fülöp, T. Emergent Physiological Processes: A new type of emergence to understand the maintenance of homeostasis in biological systems. Ninth International Conference on Complex Systems, Cambridge, MA, July 23, 2018. (Oral)
13. **Cohen, A.A.** Can we simplify physiology for use in demographic models? Meeting of the Evolutionary Demography Society, Lyon, France, January 8-10, 2018. (Oral)
14. Jarry, V., Payette H., **Cohen, A.A.** Links between gender, socioeconomic status and trajectories of physiological dysregulation in old age. XXVIIIe Congrès international de la population, Cape Town, South Africa, October-November 2017. (Poster)
15. **Cohen A.A.**, Legault, V., Fuellen, G., Fülöp, T., Fried, L.P., Ferrucci, L. Challenges understanding aging through biomarkers across populations: the example of calcium. International Association of Gerontology and Geriatrics, San Francisco, CA, July 2017. (Oral)
16. **Cohen A.A.** An objective measure of individual health and aging for population surveys. International Association of Gerontology and Geriatrics, San Francisco, CA, July 2017. (Oral)
17. Jarry, V., Payette H., **Cohen, A.A.** Inégalités de santé : L'association entre le sexe, le statut socioéconomique et les trajectoires de capacités fonctionnelles et cognitives aux grands âges, ACFAS, Montréal, May 2017. (Poster)
18. Jarry, V., Payette H., **Cohen, A.A.** Links Between Gender, Socioeconomic Status and Trajectories of Physical health in older adults, The Population Association of America Annual Meeting, Poster, Chicago, April 2017. (Poster)
19. Morissette-Thomas, V., **Cohen, A.A.**, Riesco, E., Ferrucci, L. Complex Interactions Between Inflammation and Metabolic Hormones During Aging. 68th Annual Scientific Meeting of The Gerontological Society of America. 18-22 November 2015. Orlando, Florida. (Oral)
20. Li, Q., **Cohen, A.A.** An econometric approach to understanding links between underlying health state and income among the elderly. 68th Annual Scientific Meeting of The Gerontological Society of America. 18-22 November 2015. Orlando, Florida. (Oral)
21. Bagna, M., Payette, H., Levasseur, M., Wang, S., **Cohen, A.A.** Data mining methods reveal association between social participation and nutritional risk in older adults: A Study on the NuAge cohort database. 68th Annual Scientific Meeting of The Gerontological Society of America. 18-22 November 2015. Orlando, Florida. (Oral)

22. Jarry, V., **Cohen, A.A.**, Payette, H. Links between socioeconomic status and trajectories of physiological dysregulation. 68th Annual Scientific Meeting of The Gerontological Society of America. 18-22 November 2015. Orlando, Florida. (Oral)
23. Isaksson, C., **Cohen, A.A.**, Salguero-Gómez, R. Oxidative stress and life-history trade-offs: Is it evolutionarily stable to have single physiological currencies? International Congress of Comparative Physiology and Biochemistry. August 2015, Krakow, Poland. (Oral)
24. Naud, D., Levasseur, M., Vanasse, A., Généreux, M., **Cohen, A.A.**, Kestens, Y., Bruneau, J.F., Alauzet, A. (2015). La participation sociale des aînés et ses obstacles : différences selon le genre, l'âge et les provinces. 11e Journée scientifique du Centre de recherche sur le vieillissement, Sherbrooke, Québec, Canada, 5 juin. (Poster)
25. Vanasse, A., Orzanco, MG., Bergeron, P., **Cohen, A.A.**, Niyonsenga, T., Courteau, J. Contribution of Immigration Neighbourhood Attributes to Health Inequalities Assessment. 1st Annual International Conference on Public Health, 4-7 mai 2015, Athens, Greece. (Poster)
26. Morrisette-Thomas, V., **Cohen, A.A.**, Fulop, T., Riesco, E., Legault, V., Li, Q., Milot, E., Dusseault-Bélanger, F., Ferrucci, L. (2014). Inflammaging does not simply reflect increases in pro-inflammatory markers (prize: best MSc poster). International Symposium: The Challenges of Biological Research on Aging in the 21st century: from Cells to Clinics, Sherbrooke, Canada. (Poster)
27. **Cohen, A.A.**, Milot E., Payette H., Gaudreau P., Malo N. Interactions between Nutritional Patterns and Physiological Dysregulation Trajectories during Aging. GSA Annual Scientific Meeting, Washington DC, USA, November 9, 2014. (Oral)
28. Vanasse, A., **Cohen A.A.**, Gosselin, P., Blais, C., Ruel, G., Bergeron, P. Impact of extreme meteorological events on health care: the case of flooding and cardiovascular diseases. 2014 NAPCRG Annual Meeting. November 21-25 in New York, New York. (Poster)
29. Vanasse, A., Orzanco, MG., Asghari, S., **Cohen, A.A.**, Courteau, J., Bergeron, P., Niyonsenga, T., Cloutier, L., Leroux, D. The Neighbourhood Effect of Immigration on an Urban Diabetic Population. 2014 NAPCRG Annual Meeting. November 21-25 in New York, New York. (Poster)
30. Milot, E., Moreau, C., Gagnon, A., **Cohen A.A.**, Brais, B., Labuda, D. Mother's curse neutralizes natural selection against a genetic disease in humans. Evolutionary Demography Society 2nd Annual Meeting. November 10-12 2014 in Palo Alto, CA. (Oral)
31. **Cohen, A.A.**, Isaksson, C., Salguero-Gomez, R. Single versus multiple trade-off mechanisms can produce different evolutionary outcomes. Evolutionary Demography Society 2nd Annual Meeting, November 10-12, 2014 in Palo Alto, CA. (Oral)
32. Martin, L., **Cohen, A.A.** Physiological regulatory networks: the orchestra of life? APS Intersociety Meeting: Comparative Approaches to Grand Challenges in Physiology. October 5-8 , 2014 in San Diego, California. (Oral)
33. Mercier-Gauthier, R., **Cohen, A.A.**, Mayer, F.M., Bergeron, P., Pelletier, F., Réale, D., Boisvert, M., Pasquier, J-C., Milot, E. Sélection sur la mortalité en couches dans une population préindustrielle. Congrès annuel de la société québécoise pour l'étude biologique du comportement. Montréal, November 8-10, 2013. (Poster)

34. Xue, Q., Tian, J., Bandeen-Roche, K., Cappola, A.R., Chaves P.H., **Cohen, A.A.**, Semba, R., Fried, L.P. Threshold Effect of Multisystem Physiological Dysregulation on the Development of Frailty in Older Women. GSA Annual Scientific Meeting, New Orleans, Louisiana, November 23, 2013. (Oral)
35. Li, Q., Wang S., **Cohen, A.A.**, Milot, E., Ferrucci, L. Data Mining and Informatics Approaches to Biomarker Analysis During Aging. GSA Annual Scientific Meeting, New Orleans, Louisiana, November 22, 2013. (Oral)
36. Poirier, R., **Cohen, A.A.**, Leroux, M., Dusseault-Bélanger, F., Fried, L.P., Ferrucci, L. PCA Identifies Stable Biological Processes that Predict Frailty, Death, and Chronic Diseases. GSA Annual Scientific Meeting, New Orleans, Louisiana, November 22, 2013. (Oral)
37. Xue, Q., **Cohen, A.A.**, Bandeen-Roche, K., Cappola, A.R., Chaves P.H., Semba, R., Walston, J.D., Fried, L.P. Longitudinal Evidence on Coevolution of Physiological Changes in Older Women. GSA Annual Scientific Meeting, New Orleans, Louisiana, November 22, 2013. (Oral)
38. Arbeev, K.G., **Cohen, A.A.**, Arbeeva, A., Milot, E., Akushevich, I., Kulminski, A., Yashin, A.I. Mathematical Models of Physiological Dysregulation Trajectories during Aging. GSA Annual Scientific Meeting, New Orleans, Louisiana, November 21, 2013. (Oral)
39. Morissette-Thomas, V., **Cohen, A.A.**, Dusseault-Bélanger, F., Legault, V., Ferrucci, L. Multivariate Analysis of Inflammatory Markers and their Relationship with Age. GSA Annual Scientific Meeting, New Orleans, Louisiana, November 21, 2013. (Oral)
40. Milot, E., **Cohen, A.A.**, Li, Q., Fried, L.P., Ferrucci, F. Bayesian Analysis of Physiological Dysregulation Trajectories during Aging. GSA Annual Scientific Meeting, New Orleans, Louisiana, November 21, 2013. (Oral)
41. Leroux, M., **Cohen, A.A.**, Milot, E., Poirier, R., Li, Q., Fried, L.P., Ferrucci, L. Reference Populations for Statistical Distance of Physiological Dysregulation Demonstrate Within-country Homogeneity but Inter-country Heterogeneity of Biomarker Patterns in Aging. GSA Annual Scientific Meeting, New Orleans, Louisiana, November 21, 2013. (Oral)
42. Vasunilashorn, S., **Cohen, A.A.** Stress Responsive Biochemical Anabolic/Catabolic Imbalance and Telomere Length in Older Adults. GSA Annual Scientific Meeting, New Orleans, Louisiana, November 21, 2013. (Oral)
43. Milot, E., **Cohen, A.A.**, Mercier-Gauthier, R., Bergeron, P., Pelletier, F., Réale, D., Boisvert, M., Pasquier, J.C., Mayer, F.M. Selection on vital rates and maternal mortality in a preindustrial population. Evolutionary Demography Society 1st Annual Meeting, Odense, Denmark, October 6-10, 2013. (Oral)
44. Brouwers, F., **Cohen, A.A.**, Courteau, J., Farand, P., Cloutier, L., Asghari, S., Vanasse, A. Comparative efficacy of blood pressure lowering drugs in primary prevention for elderly patients. ISPOR 4th Latin America Conference, Buenos Aires, Argentine, September 12-14 2013. (Oral)
45. Brouwers, F., Courteau, J., **Cohen, A.A.**, Farand, P., Cloutier, L., Asghari, S., Vanasse, A. Beta-blockers are associated with less effective prevention of adverse outcomes among elderly patients with uncomplicated hypertension: A series of population-based nested case-control studies. International Forum on Quality and Safety in Healthcare, London, 16-19 April 2013. (Poster)

46. Vasunilashorn, S., **Cohen, A.A.**, Stress Responsive Biochemical Anabolic/Catabolic Ratio and Telomere Length in Older Adults. Integrating Genetics and the Social Sciences, Boulder, CO, Oct 10-12, 2013. (Oral)
47. **Cohen, A.A.**, Milot, E. Exploratory SEM on longitudinal data: Causal modeling in the absence of a priori hypotheses. XXVII International Union for the Scientific Study of Population, Aug. 26-31, 2013, Busan, South Korea. (Oral)
48. **Cohen, A.A.**, Milot, E., Morissette-Thomas, V. Statistical distance: A promising measure of physiological dysregulation in biodemographic studies. XXVII International Union for the Scientific Study of Population, Aug. 26-31, 2013, Busan, South Korea. (Oral)
49. **Cohen, A.A.**, Yasar, S., Fulop, T., Bandeen-Roche, K., Xue, Q., Yong, J., Fried, L.P., Ferrucci, L. Electrolyte Dysregulation in Aging: A New Type of Dysregulation Identified by Multivariate Distribution Analysis. Gerontological Society of America, San Diego, CA, Nov. 2012. (Oral)
50. **Cohen, A.A.**, Dusseault-Bélanger, F., Fried, L.P., Ferrucci, L. Multi-System Biomarker Analyses in Two Aging Populations: Same Big Picture, Different Details for WHAS and InCHIANTI. Gerontological Society of America, San Diego, CA, Nov. 2012. (Oral)
51. Dusseault-Bélanger, F., **Cohen, A.A.**, Xue, Q., Fried, L.P., Ferrucci, L. Understanding the Aging Process Using Principal Component Analysis on Longitudinal Biomarkers Suites: InCHIANTI. Gerontological Society of America, San Diego, CA, Nov. 2012. (Oral)
52. **Cohen, A.A.** Statistics-based Multi-biomarker Tools to Follow Physiological Dysregulation in Patients. North American Primary Care Research Group Annual Meeting, New Orleans, Louisiana, Dec. 2012. (Oral)
53. **Cohen, A.A.**, Scheuerlein, A. Systemic Physiological Constraints: A New Evolutionary Theory of Aging. 1st Joint Congress on Evolutionary Biology, Ottawa, Canada, July 2012. (Oral)
54. **Cohen, A.A.**, Vanasse, A., Courteau, J. Specialized Cardiologic Care May Be Over-Utilized in Urban Areas of Quebec. North American Primary Care Research Group Annual Meeting, Banff, AB, Canada, November 2011. (Oral)
55. **Cohen, A.A.**, El-Mousselly, A., Dusseault-Bélanger, F., Xue Q., Fried L.P. Statistical and Mathematical Approaches to Understanding Longitudinal Changes in Suites of Biomarkers. Gerontological Society of America's 64th annual meeting, Boston, MA, November 2011. (Oral)
56. Dusseault-Belanger, F., **Cohen, A.A.**, Xue, Q., Fried, L.P. Understanding the Aging Process Using Principal Component Analysis on Biomarkers Suite. Gerontological society of America's 64th annual meeting, Boston, MA, November 2011. (Oral)
57. **Cohen, A.A.** A Novel Bayesian Method for Modeling Cause of Death by Type and Sub-type. Population Association of America Annual Meeting, Washington, April 2011. (Poster)
58. **Cohen, A.A.** The Evolution of Physiological Systems and the Emergent Properties of Regulatory Networks. Annual Meeting of the Society for Integrative and Comparative Biology, Salt Lake City, UT, January 3-7, 2011. (Oral)
59. **Cohen, A.A.** The Systemic Constraints Theory of Aging: Integrating Evolutionary and Mechanistic Approaches. 63rd Annual Scientific Meeting of the Gerontological Society of America, New Orleans, LA, November 2010. (Poster)

60. Vanasse, A., Asghari, S., **Cohen, A.A.**, Brais, G., Couture, E., Desnoyers, S., Fortin-Langelier, B., Simard, A. Healthcare Providers' Absenteeism During the H1N1 Pandemic in Quebec: Is Care for Unimmunized Relatives a Problem? American Public Health Association 138th Annual Meeting & Expo, Denver, November 2010. (Poster)
61. **Cohen, A.A.** Developmental Effects of the 1918-19 Flu Pandemic on Late-Life Mortality: Reconciling Disparate Findings. Population Association of America, Dallas, TX, April 2010. (Oral)
62. Morris, S.K., Bassani, D.G, Kesler, M., **Cohen, A.A.**, Kumar, R, Jha, P. Neonatal and Childhood Mortality from Acute Respiratory Infections in India: A Population Based Study. Pediatric Academic Society, Vancouver, BC, May 2010. (Poster)
63. **Cohen, A.A.**, Tillinghast, J., Canudas-Romo, V. 'Lexis Cohorts': Extracting Information on Half-Year Cohorts from 1-Year Format Lexis Data. International Union for the Scientific Study in Population, Marrakech, Morocco, September 2009. (Oral)
64. **Cohen, A.A.**, Tillinghast, J., Canudas-Romo, V. No Consistent Effects of Prenatal or Neonatal Exposure to Spanish Flu on Late-Life Mortality in 24 Developed Countries. Population Association of America, Detroit, Michigan, April 2009. (Oral)
65. **Cohen, A.A.** Antioxidants and Uric Acid in Avian Physiology and Ecology: A Life-History Perspective. North American Ornithological Congress, Veracruz, Mexico, October 2006. (Oral)
66. **Cohen, A.A.** Female Post-Reproductive Lifespan: Not Unique to Humans. Midwest Ecology and Evolution Conference, St. Louis University, St. Louis, MO, March 2006. (Oral)

Invited Presentations

External

1. **Cohen, A.A.** Measuring aging within and across species: challenges and solutions from a complex systems perspective. NIH Longevity Consortium (online). Oct 28, 2020.
2. **Cohen, A.A.**, Gravel, D. L'interdisciplinarité des systèmes complexes : l'exemple de l'écosystème immunitaire. Colloque du scientifique en chef du Québec, direction aux défis de société et aux maillages intersectoriels des Fonds de recherche du Québec, ACFAS, May 5, 2020 (Conference postponed to 2021).
3. **Cohen, A.A.** Complex system dynamics and aging in physiological systems. Columbia University, February 27, 2020.
4. **Cohen, A.A.** Complex systems dynamics and aging: Impacts on evolution and mechanisms. Calico Life Sciences, May 17, 2019.
5. **Cohen, AA.** "Trade-offs, complexité et l'évolution des traits physiologiques". L'Institut national de la recherche agronomique, Saint-Pée sur Nivelle, France, December 17, 2018.
6. **Cohen, AA.** "Biomarkers as general predictors of health outcomes: potential, pitfalls, and integration approaches". University of Rostock, Rostock, Germany, January 16, 2018.
7. **Cohen, AA.** "Biomarker-based metrics of general health and aging for population surveys: theory and progress". *Johann Sussemilch Lecture*, Max Planck Institute for Demographic Research, Rostock, Germany, January 16, 2018.

8. **Cohen, AA.** “A complex systems perspective on the biology and evolution of aging”. Max Planck Institute for the Biology of Aging, Cologne, Germany, January 12, 2018.
9. **Cohen, AA.** “Quel avenir pour l’écophysiologie dans un monde multivarié et complexe?” Université Pierre et Marie Curie, Paris, France, January 11, 2018.
10. **Cohen, A.A.** “Aging, with and without an evolutionary perspective”. Queens University, Kingston, Canada, March 2017.
11. **Cohen, A.A.** “How physiological complexity impacts our understanding of trade-offs, ecophysiology, and the aging process”. *Ecology, Evolution, and Behaviour Seminars*, Queens University, Kingston, Canada, March 29, 2017.
12. **Cohen, A.A.** “Biological, clinical, and population impacts of a complex-systems approach to aging”. Center for the Study of Aging and Human Development, Duke University, Durham, NC, March 22, 2016.
13. **Cohen, A.A.** “How important are complex system dynamics in aging biology? Emerging evidence, recurring questions”. *McGill University Centre for Applied Mathematics in Bioscience and Medicine Speaker Series*, Montreal, Canada, April 9, 2015.
14. **Cohen, A.A.** “How longitudinal studies can make us rethink the underlying biology of aging”. *The Challenges of Biological Research on Aging in the 21st Century: From Cells to Clinics*, Sherbrooke, Canada, November 2014.
15. **Cohen, A.A.** “Complexité physiologique et vieillissement: implications pour les processus populationnels”. Université de Montréal, Department of Demography, Montreal, Canada, 2013.
16. **Cohen, A.A.** “La dérégulation physiologique : Nouvelle approche pour comprendre le vieillissement”. Réunion scientifique en gérontopsychiatrie, Hôpital du Sacré-Cœur de Montréal, Montréal, Canada, September 26, 2013.
17. **Cohen, A.A.** “Why Physiology Matters in Evolutionary Demography”. *Evolutionary Demography Workshop*, Max Planck Institute for Demographic Research, Rostock, Germany, June 6-8, 2012.
18. **Cohen, A.A., Dusseault-Bélanger, F., Hivert, M-F., Courteau, J., Vanasse, A.** “Understanding Metabolic Syndrome Through Principal Components Analysis in a Sick Quebec Population”. *Canadian Institutes of Health Research New Principal Investigators Meeting*, Mont-Gabriel, Canada, Nov 4-6, 2011.
19. **Cohen, A.A.** “Biomarkers, Physiological Change, and Age”. *Stanford Workshop in Biodemography: Human Life History*, Stanford University, Palo Alto, CA, June 10, 2011.
20. **Cohen, A.A.** “Antioxydants et régulation physiologique chez les oiseaux: vers où va l’écophysiologie?” Université de Québec à Rimouski, Canada, April 15, 2011
21. **Cohen, A.A.** “PCAT en Canada y Uruguay: situación y preguntas”. *Conferencia sobre la implementación del PCAT en Uruguay*, Universidad de la Republica, Montevideo, Uruguay, November 3, 2010.
22. **Cohen, A.A.** “Modeling Malaria to Strengthen Surveillance Systems”. *MITAC/Signal Detection Conference*, University of Toronto/Ontario Agency for Health Protection and Promotion, Toronto, Canada, October 2009.

23. **Cohen, A.A.** “Complexities In Linking Physiology to Ecological and Evolutionary Patterns: A Cautionary Tale from Antioxidants”. Trent University, Department of Biology Seminar Series, Durham, Canada, October 2009.
24. **Cohen, A.A.** “Antioxidants and Biomarkers of Aging in Animals”. Workshop on Age Determination, Max Planck Institute for Demographic Research, Rostock, Germany, October 2007.
25. **Cohen, A.A.** “Antioxidants and Uric Acid in Avian Physiology and Ecology: A Life-History Perspective”. *Howard Hughes Medical Institute Annual Fellows Meeting*, Chevy Chase, MD, September 2006.
26. **Cohen, A.A.** “What We Can Learn about Aging from Wild Animals: 3 short topics”. *Aging Journal Club*, Washington University, St. Louis, MO, May 2006.
27. Ricklefs, R.E., Scheuerlein, A., and **Cohen, A.A.** “Age Related Patterns of Fertility in Captive Populations of Birds and Mammals”. Symposium on Organisms with Slow Aging, University of Southern California, Los Angeles, CA, January 2003.

Internal (selected)

1. **Cohen, A.A.** “C’est quoi le vieillissement, et comment peut-on le mesurer?”, Oct 2, 2017, BistroBrain, Sherbrooke, Québec, Canada.
2. **Cohen, A.A.** “Data from multiple sources – studies of aging, turning patient health data into accessible information knowledge for an improved health care system”. Faculté de médecine et des sciences de la santé, Université de Sherbrooke, September 24, 2013.
3. **Cohen, A.A.** Vanase, A and Fülöp, T. “Une compréhension de dérégulation physiologique : quel rôle pour l’amélioration de soins en médecine de famille?” Journées d’orientation départementales en Médecine de famille, Université de Sherbrooke oke, Québec, Canada, April 25, 2013.
4. **Cohen, A.A.** "Trois projets en biostatistique appliquée". Dépt. de Mathématique, Université de Sherbrooke, January 20, 2011.
5. **Cohen, A.A.** "Vieillissement et complexité des systèmes physiologiques: Leçons des antioxydants chez les oiseaux". Centre de recherche sur le vieillissement, Université de Sherbrooke, September 22, 2010.
6. **Cohen, A.A.** "Aging and the Complexity of Physiological Systems: What We Can Learn from Avian Antioxidants". Dept. de Biologie, Université de Sherbrooke, March 15, 2010.
7. **Cohen, A.A.** “Female Post-Reproductive Lifespan: Not Unique to Humans”. Gerontology Interest Group Poster Competition, Johns Hopkins School of Public Health, September 2008.

Media Exposure

Broadcast interviews

1. "[Comptabiliser les décès en temps de pandémie](#)", ICI Radio-canada, Première heure, Claude Bernatchez, April 22, 2020.
2. "[Corps et activité physique](#)", Telle est la question, Savoir Media, 2020.

3. "[Health and Aging as Complex Networks](#)", featured guest, podcast, The Human Current episode 124, April 25, 2019.
4. [Entrevue avec Henri Laban](#), Mieux vieillir, radio Ville-Marie (CIRA-FM), February 18, 2019.
5. "[Le transhumanisme, ou le rêve de l'homme amélioré](#)", Médium large, Radio-Canada première chaîne (101,1), Stéphan Bureau, August 1, 2018.
6. "[Un gène de la jeunesse?](#)", Les samedis du monde, Radio-Canada première chaîne (101,1), Arnaud Decroix, June 25, 2016.
7. "[Les secrets de la longévité : entrevue avec Alan Cohen](#)", Les Éclaireurs, Radio-Canada première chaîne (101,1), Sophie-André Blondin, Jan 30, 2016.
8. "Séduction et fertilité chez le singe humain", Écoutez l'Estrie, Radio-Canada première chaîne (101,1), Réjean Blais, February 14, 2014.
9. "Fertilité et séduction: Hommes et femmes sont-ils égaux?", Midi Actualité, 107,7 Estrie, Martin Pelletier, February 14, 2014.

Text interviews

1. "[Nova Scotia researcher granted \\$1.2M to study effects of Vietnam War on human aging](#)", The St. Catharines Standard journal, Danielle Edwards, March 18, 2021.
2. "[Écosystème et corps humain : deux systèmes, mêmes dynamiques](#)", ACFAS Magazine, Johanne Lebel, September 2020.
3. "[Retour au jeu dans la LNH : quelles sont les inquiétudes sanitaires?](#)", ICI Radio-canada Nouvelles, Alexandre Gascon, June 5, 2020.
4. "[De quoi meurent les Québécois: la COVID-19 devient la deuxième cause de mortalité au Québec](#)", Le Journal de Québec, Kathyne Lamontagne, May 2, 2020.
5. "[La COVID-19 sera-t-elle la première cause de décès au pays cette année?](#)", ICI Radio-canada Nouvelles, Mathieu Gobeil, April 2, 2020.
6. "[If You Want to Change Your Habits, You Have to Plan to Mess Up Sometimes](#)", Vice, December 30, 2019.
7. "[An Alarmingly Deep Dive Into the Science of Baby Yoda](#)", Popular Mechanics, Eric Spitznagel, December 2, 2019.
8. "[Challenging trade-off theories behind of aging and lifespan](#)", Official blog of the Functional Ecology journal, Cohen, A.A., September 10, 2019.
9. "[Son message à presque 110 ans : «aimez-vous les uns et les autres»](#)", Journal Métro, November 7, 2017.
10. "[La «malédiction de la mère» prouvée chez l'humain](#)", La Presse, Montréal, August 22, 2017.
11. "«Malédiction» datant de la Nouvelle-France", Le Soleil, Québec, August 21, 2017.
12. "[Le gène qui fait paraître plus jeune](#)", Le Temps (Switzerland), April 29, 2016.
13. "Le vieillissement mieux compris et mieux analysé pour des solutions optimales", La Tribune, October 22, 2014.
14. "[Why Do We Age? A 46-Species Comparison](#)", National Geographic, Virginia Hughes, December 8, 2013.
15. "[Et vlan! dans les dents des antioxydants!](#)", Protégez-Vous, Priscilla Franken, January 25, 2011.

16. As the science of preventing aging pushes further forward, researchers discuss the likely economic fallout, February 19, 2006. <http://www.redherring.com/>