

Haja Kadarmideen – DVM, MVSc, PhD

**Professor & Head of Quantitative Genomics, Bioinformatics & Computational Biology
DTU Compute, Technical University of Denmark (DTU)**

DTU website: <https://orbit.dtu.dk/en/persons/haja-kadarmideen>

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 <https://www.researchgate.net/profile/Haja-Kadarmideen>

RESEARCH & DEVELOPMENT | INNOVATION | EDUCATION | TECHNOLOGY | LEADERSHIP

Accomplishments traversing over 3 decades, developing & leading Research, Innovation & Technology in Quantitative Genetics/Genomics, Systems & Computational biology, Bioinformatics, AI & ML methods and software development for MultiOmics data analyses in animal, human, and life sciences. Tenured full professor, research director, and executive leader for 20+ years with strong multicultural & international experience across 7 countries in 4 continents

A full tenured professor & research director turned C-level executive, in research, innovation, and technology with ca. 28 years providing **leadership in Quantitative Genetics/Genomics, Bioinformatics, Systems genomics, and Computational-systems biology, and biostatistical & AI-ML methods for big biological / biotechnology datasets from Agri-tech, biomedicine and life Sciences**. Renowned statistical and computational expert in **the design and analyses of Genetics/genomics, Epigenomics, Transcriptomics/RNA Biology, Metabolomics, Proteomics & Metagenomics experiments or field trials in human and animals**.

Experienced **organizational leader** from group level to department levels in universities, national team leader in government and a **business strategist and executive** in commercial R&D in private company. **Entrepreneurial leadership** certificates from IMD Business School, Switzerland and INSEAD Business school, France. **Broad international networks in my profession** due to my work/life experience across **7 countries in 4 continents over 30 years**.

CAREER

- ⦿ **Professor & Head of Quantitative Genomics, Bioinformatics & Computational Biology | Technical University of Denmark | Denmark | 03/2017 to Present**
- ⦿ **Chief Technology Officer & Head of R&D | Synomics Ltd. | UK, USA & Denmark | 02/2020 to 10/2022**
- ⦿ **Director - Institute of Bioinformatics and Health Informatics | Technical University of Denmark | Denmark | 03/2017 to 07/2018**
- ⦿ **Professor & Head of Quantitative Genomics & Systems Biology | University of Copenhagen | Denmark | 12/2010 to 02/2017**
- ⦿ **Principal Scientist & Team Leader, Commonwealth Scientific and Industrial Research Organization (CSIRO) | Australian Government, Australia | 11/2006 to 12/2010 (<https://www.csiro.au/>)**
- ⦿ **Tenure-track Assistant Professor & Head of Statistical Genetics, ETH Zurich, Switzerland, 09/2001 to 10/2006**
- ⦿ **Deputy Director of Institute of Animal Sciences, ETH Zurich, Switzerland (<https://ethz.ch/en.html>)**
- ⦿ **Statistical Geneticist, Scottish Agricultural College (SAC), Edinburgh, United Kingdom, 07/1998 – 09/2001**

OTHER EMPLOYMENTS / WORK EXPERIENCE

- ▶ **Founder & CEO** of AVA Genomics Consultancy ApS, Copenhagen, Denmark (1 March 2016 - present)
- ▶ **Visiting Professor** of Animal Genomics, Centre for Research in Agricultural Genomics (CRAG), Barcelona, Spain, 2015
- ▶ **Adjunct Assoc. Prof.** in Animal Breeding & Genetics, University of New England, Australia, 01/2007 – 12/2010
- ▶ **Post doc** (Quantitative/Statistical Genetics), University of Madison, Wisconsin, USA - 1999
- ▶ **Research & Teaching Assistant**, University of Guelph, Canada, 09/1994 – 08/1998
- ▶ **Veterinary Surgeon & Head of Veterinary Hospital**, Government of Tamil Nadu, India 07/1992 - 09/1994

ACADEMIC DEGREE QUALIFICATIONS

- ▶ **PhD** (Quantitative/Statistical Genetics), University of Guelph, Ontario, **Canada** & Wageningen University, **Netherlands** – 1997
- ▶ **MVSc** (Veterinary Genetics), Madras Veterinary College, Tamil Nadu Veterinary & Animal Science University, **India** – 1992
- ▶ **DVM** (Veterinary Medicine), Madras Veterinary College, Tamil Nadu Veterinary & Animal Science University, **India** – 1989

SELECTED RECENT COURSE CERTIFICATES

- 2022 - **LinkedIn** - Certificate in **The Data Science of Healthcare, Medicine, and Public Health**
- 2022 - **LinkedIn** – Certificate in **Artificial Intelligence Foundations Machine Learning**
- 2022 – **LinkedIn** – Certificate in **Data Infrastructure and AI-ML**

EXECUTIVE BUSINESS MANAGEMENT CERTIFICATES

- 2022 – **INSEAD Business School, France** – Certificate in **Strategic R&D Management** - executive education
- 2022 - **Project Management Institute, Inc, USA** - Certificate in **Executive Leadership**
- 2021 - **IMD Business School, Switzerland** – Certified in **Inspirational Leadership** - executive education

PUBLICATIONS & TALKS

- Highly **productive in scientific publications** as seen in Web of Science, [Orcid](#), [Google Scholar](#), [Research gate](#). Google Scholar: **H-index of 37**. **WoS for last 5 years H-Index of 29**. Search string in WoS and other databases: “Kadarmideen, HN or Kadarmideen H or Kadarmideen”
- **Ca. 385 refereed scientific publications, of which:**
- Ca. 136 journal articles with international peer review published in journals including in *Nature*, *Nature Genetics*, *Human Mol.genetics*, *Bioinformatics*, *PLoS One*, *Computational biology*, *BMC Medical Genetics*, *BMC Systems biology*, *BMC Genomics*, *BMC Bioinformatics*, *Frontiers in Genetics*, *Animal bioscience*, *FASEB* and *Reproductive Biology* journals
- Ca. 58 refereed papers as international conference proceedings, Ca. 174 scientific abstracts / short papers, 2 Books and 12 book chapters
- **Ca. 19 biological databases, 9 genomic and biological data analysis software platforms or tools**
- **6 Commercial project industry reports**
- **Over 200 talks (ca. 100 invited) in 22 countries over 30+ years** of my career
- **Several academic and 3 industry webinars**

COMPETITIVE RESEARCH GRANTS

- Total competitive lifetime grants of ~ **€ 22.0 Million or US\$ 25.0 Million**
- ca. 50 large multi-year research and innovation projects from academic-industry partnerships over 30 years as lead / principal investigator at universities and government organizations and over 30+ commercial projects in Synomics Ltd as CSO/CTO.

- See some of my recently funded projects at the Technical University of Denmark here: <https://orbit.dtu.dk/en/persons/haja-kadarmideen/projects/>
- External funding by government ministries, research / science foundations, private industries, national strategic research councils, European Union FP 7 programmes & Development Agencies
- Separate document with list of external grants can be requested

ACADEMIC and INDUSTRY SUPERVISION EXPERIENCE

- Main or co-supervisor for 25 PhDs to-date in Denmark, Switzerland, and Australia
- Eight guest PhD students
- Main supervisor of 15 Postdocs and adjunct lecturers
- Direct manager for ca. 20 research scientists, 18 faculty members including assistant professors, adjunct professors, associate professors, and full professors in academia (@ Technical University of Denmark and at University of Copenhagen)
- Direct manager for ca. 10 Senior research scientists (geneticists, data scientists, biostatisticians, bioinformaticians, software engineers) at Synomics Ltd across USA, UK, and Denmark.
- Direct manager for administrative staff including department manager, PA, finance, HR, and communication staff

TEACHING EXPERIENCE

- **Course leader and main teacher of 2 BSc and 4 MSc courses** in the fields of animal breeding, quantitative genetics, and systems- and computational- biology and statistics. some examples below.
- University of Copenhagen:
 - Graduate (MSc) Course SASA14001U: **Quantitative Genomics, Breeding and Systems Biology** (15 ECTS). The course description at: <http://kurser.ku.dk/course/sasa14001u/2014-2015>.
- Technical University of Denmark:
 - Graduate (MSc) Course 02590: **Quantitative Genomics and Computational Systems Biology** at the (5 ECTS). The course description at: <https://kurser.dtu.dk/course/2019-2020/02590>.
 - Teaching also in 02402 **Introduction to Statistics** (5 ECTS) at BSc level. The course description can be found at: <https://kurser.dtu.dk/course/02402>
- At ETH Zurich Switzerland (2001-2006), I have taught the following courses
 - 751-1620 **Quantitative Genetics** (MSc course)
 - 751-1635 **Livestock genetics & breeding** (MSc Course)
 - 751-6200 **Quantitative and Population genetics** (BSc Course)
 - 751-1650 **Dairy Cattle Breeding** (BSc Course)
- Other experiences in **teaching mammalian genomics, bioinformatics, and systems biology as lecturer**
- **Board of teaching committees for BSC and MSc Animal Science curriculum development** at Faculty of Agriculture and Food Sciences, ETH Zurich Switzerland
- **Program Coordinator of Joint MSc degree in Sustainable Animal Breeding & Genetics** between ETH Zurich, Switzerland and Wageningen University, The Netherlands. This later on became European Master's program involving many other EU countries (<https://www.wur.nl/en/education-programmes/master/msc-programmes/animal-breeding-and-genetics.htm>)

SELECTED AWARDS & DISTINCTIONS

- 2018: Recognition of achievements as a full professor at DTU by the University President
- 2016: Chair of International Symposium on Modern Cattle Breeding (MoCaS), Copenhagen
- 2014: Chair of Indo-Danish conference on Obesity
- 2011: EU FP7 Marie Curie Career Integration Award for 4 years for systems genetics & biology

- 2007: Office of the Chief Executive (OCE) CSIRO Australia award – top national award for top research projects
- 2005: “Best teacher” award from Dean of Faculty of Agriculture, ETH Zurich, Switzerland
- 2004: ETH Zurich, Switzerland – University Rector award for 'Sustainable Animal Breeding and Genetics' program
- 1999: Fellowship as visiting scientist to USA by European Commission
- 1997: University of Guelph, merit scholarship
- 1996: Guelph-Wageningen Exchange Graduate Research Program award
- 1994: University of Guelph, Canada Student fund.
- 1992: TANUVAS, India Gold Medal for master’s Thesis in Animal Genetics

SERVICES AND ROLES (PAST & CURRENT) IN SCIENTIFIC COMMUNITY

- Member of the national committee for research & infrastructure for Personalized Medicine, Danish Ministry of Health (2017-2018).
- Member - committee for East Denmark infrastructure for Personalized Medicine (2017-2018)
- Steering Committee member for Centre for Research in Pig Production and Health (CPH Pig) – (2014-2017)
- Co-director or driver of the BOA 27 FoodBest program of the European Institute of Innovation and Technology- Past role
- Director of the Danish-Indian BioChild Research Consortium (~25 staff) ~ 5 years
- Director of the Danish-Brazilian GIFT Research Consortium (~30 staff) ~ 5 years
- Past Steering committee member for coordination of Danish research in relation to genetics and biotechnology in cattle
- Past member of Copenhagen Centre of Mink production and Health initiative (CPH-Mink)
- Past member of the Copenhagen Centre of Cattle Production and Health initiative (CPH-Cattle)
- Past Standing committee member of the University of Copenhagen for India Action Plan
- (Associate) Editor of Journals: Frontiers in Genetics (Livestock Genomics), Frontiers in Veterinary Science, Nature Scientific Reports, Turkish journal of Veterinary & Animal Sciences

SELECTED ASSESSMENT COMMITTEE CHAIR OR MEMBERSHIPS

- Applications for tenure-track and tenured professorships at ETH Zurich, at the University of Copenhagen and Technical University of Denmark (DTU)
- Professorial planning committees ETH Zurich, University of Copenhagen, and DTU
- University strategic planning committees at ETH Zurich, University of Copenhagen and DTU
- Examiner of PhD theses at CSIRO Australia, ETH Zurich, University of Copenhagen, DTU
- External examiner of PhD theses in other universities

LEADERSHIP and MANAGEMENT TRAINING or EXPERIENCE

- 2022 – INSEAD Business School, France - Certified executive in Strategic R&D Management - executive education program
- 2022 - Project Management Institute, Inc, USA - Certificate in Executive Leadership
- 2022 - LinkedIn – Certificate in Key Mental Shifts for Servant Leadership
- 2022 - LinkedIn – Certificate in Learn Emotional Intelligence - the Key Determiner of Success
- 2022 – LinkedIn - Certificate in Chief Technology Officer Career Guide
- 2021 - IMD Business School, Switzerland – Certified executive in Inspirational Leadership - executive education program
- 2017 – Board of Institute Directors at Technical University of Denmark (~1.5 years)

- 2015 - Leadership Development Foundation for University Leaders, 3 module residential course, Denmark
- 2015- EARMA - European Association for Research managers and Administrators workshop, Netherlands
- 2010- Project Management in SAP program, Brisbane, CSIRO Australia Oct 2010
- 2009- Stress Management at work, Rockhampton, CSIRO Australia
- 2008- Equal Employment and Equity Contact Officer (ECO) of CSIRO Training program, Brisbane, Australia
- 2008- Research Management Overview for Managers, CSIRO Australia
- 2008- SAP Project and Finance Management systems, CSIRO Australia
- 2007- Project Leadership Initiative course (4 full days), CSIRO Brisbane, Australia
- 2006- Managing cultural diversity at work, ETH Zurich, Switzerland
- 2005- Research project management, ETH Zurich, Switzerland
- 2000- Developing research project management skills, Edinburgh, UK
- 1999- Dealing with difficult situations at work: conflict resolution, Edinburgh, UK

SELECTED PAST PROFESSIONAL MEMBERSHIP(s)

- Member of the European Association for Animal Production (EAAP)
 - Member of the British Society for Animal Science (BSAS)
 - Member of American Animal Science Association (ASAS)
 - Member of Association for the Advancement of Animal Breeding and Genetics (AAABG)
 - Member of the Danish Veterinary Employee Association (ADO)
 - Member of Genetics Society of Great Britain
 - Member of International Mammalian Genome Society (IMGS)
 - Member of International Genetic Epidemiology Society (IGES)
 - Member of The International Society for Computational Biology (ISCB)
 - Member of The Genetics Society of America (GSA)
 - Member of European Society of Human Genetics (ESHG)
 - Member of Diversity Council of Australia
 - Member of Swiss Association for Animal Production (SVT)
 - Member of working group in European Forum on Agricultural Research for Development
 - Member of Swiss Centre for International Agriculture (ZIL)
 - Member of Network for International Development and Cooperation (NIDECO)
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