Julian H. Lange, Ph.D.

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Meticulous and engaging data analyst and visualization expert with a Ph.D. in biomedical sciences from M.I.T., an M.S. in Data Visualization from Parsons School of Design, and a track-record of influential ideas, publications, and awards. Attention to detail in data analysis and design cultivated through rigorous scientific training, extensive data wrangling, and graphics programming. Collegial teammate adept at working collaboratively in diverse work environments. Strong interest in telling stories with data.

EDUCATION

M.S. in Data Visualization, Parsons School of Design New York, NY **2018**

Ph.D. in Biology, Massachusetts Institute of Technology Cambridge, MA **2008**

D.E.A. in Cancer Biology, University of Paris & Curie Institute Paris, France **1999**

B.S. in Biochemistry, McGill University Montreal, Canada **1997**

PROFESSIONAL EXPERIENCE

Los Angeles Times Los Angeles, CA Jun 2018–present

Visualization and Data Intern

Work with reporters and editors to create charts, maps, graphics, and explanatory videos that accompany the newspaper's online and print articles.

- Use programming software to analyze and graph data
- Contribute graphic elements to news pieces covering a wide range of topics

Memorial Sloan Kettering Cancer Center New York, NY 2008–2017

Postdoctoral Fellow (Sep 2008–Sep 2016) and HHMI Research Specialist (Jan–Jun 2017)

Executed independent, hypothesis-driven biomedical research using experimental and programmatic approaches in the laboratory of Dr. Scott Keeney. Functions included statistical analyses using R to identify meaningful patterns in large data sets; conceiving, performing and analyzing experiments in molecular biology and genomics; using bioinformatic and visualization tools to communicate findings in print publications and seminars; and writing and editing manuscripts.

- Published 16 articles in top-tier, peer-reviewed scientific journals, including *Nature* and *Cell*
- Worked collaboratively with research groups in New York, London, Barcelona, and Dresden
- Awarded $25,000 Tri-Institutional Breakout Prize for Junior Investigators for scientific impact
- Presented complex concepts at national and international conferences
- Awarded postdoctoral fellowship from the American Cancer Society
- Supervised research of a Ph.D. candidate and trained a laboratory technician

Massachusetts Institute of Technology Cambridge, MA 2000–2008

Ph.D. Researcher and Instructor

Carried out independent research on human genetic disorders of the Y chromosome in the laboratory of Dr. David Page, Director of the Whitehead Institute for Biomedical Research.

- Research findings covered in The New York Times
- Discoveries published in 5 articles in top-tier scientific journals
- Developed a web-based database of genetic markers for testing the human Y chromosome
- Taught sections of two undergraduate courses and mentored six students

SKILLS

Programming Tools and Software

- R, JavaScript, D3.js, p5.js, HTML/CSS
- Adobe Illustrator, Adobe Photoshop, Microsoft Office

Languages

- French (fluent with oral and written knowledge)
- German (conversational)

SELECTED SCIENTIFIC PUBLICATIONS (10 OF 23)

Primary authorship

- **Lange J** et al. Cell (2016) The landscape of mouse meiotic double-strand break formation, processing and repair
- **Lange J** et al. Genomics (2013) Intrachromosomal homologous recombination between inverted amplicons on opposing Y-chromosome arms
- **Lange J** et al. Nature (2011) ATM controls meiotic double-strand-break formation
- **Lange J** et al. Cell (2009) Isodicentric Y chromosomes and sex disorders as byproducts of homologous recombination that maintains palindromes
- **Lange J** et al. Nucleic Acids Research (2008) MSY Breakpoint Mapper, a database of sequence-tagged sites useful in defining naturally occurring deletions in the human Y chromosome

Secondary contribution

- Lukaszewicz A, **Lange J** et al. Cell Cycle (2018) Control of meiotic double-strand-break formation by ATM: local and global views
- Widger A, Mahadevaiah S, **Lange J** et al. Nature Communications (2018) ATR is a multifunctional regulator of male mouse meiosis
- Jain D, Meydan C, **Lange J** et al. PLoS Genetics (2017) rahu is a mutant allele of Dnmt3c, encoding a DNA methyltransferase homolog required for meiosis and transposon repression in the mouse male germline
- Daniel K, **Lange J** et al. Nature Cell Biology (2011) Meiotic homologue alignment and its quality surveillance are controlled by mouse HORMAD1
- Versteege I, Sévenet S, **Lange J** et al. Nature (1998) Truncating mutations of hSNF5/INI1 in aggressive paediatric cancers

AWARDS & FELLOWSHIPS

- The New School Provost Scholarship, 2017–2018
- Tri-Institutional Breakout Prize for Junior Investigators, 2015
- American Cancer Society Postdoctoral Fellowship, 2012–2013
- Finalist, Life Sciences Research Foundation Postdoctoral Fellowship, 2010
- M.I.T. Walter A. Rosenblith Graduate Fellowship, 2000–2002
- Fellowship, Académie Nationale de Médecine, 1998–1999
- NSERC Canada Scholarship in Science and Engineering, 1993–1997
- McGill University McConnell Entrance Scholarship, 1993–1997

INVITED TALKS

- New York University Langone Medical Center, Mar 2015 New York, NY
- UT Southwestern Children's Medical Center Research Institute, Mar 2015 Dallas, TX
- The Hospital for Sick Children, Feb 2015 Toronto, Canada
- 8ème Journée d'Endocrinologie Sexuelle Alfred Jost, Mar 2010 Paris, France
- American Society of Andrology 31st Annual Conference, Apr 2006 Chicago, IL
- 15th International Chromosome Conference, Sep 2004 London, UK