Nicolas Chevrier, Ph.D.

Assistant Professor in Molecular Engineering
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PROFESSIONAL POSITIONS HELD

Sep 2017-present **Assistant Professor in Molecular Engineering**
Pritzker School of Molecular Engineering**,** The University of Chicago, Chicago IL, USA
Member, Committee on Immunology
Member, Graduate Program in Biophysical Sciences
Member, UChicago Medicine Comprehensive Cancer Center
Member, Committee on Genetics, Genomics and Systems Biology

2012-2017 **Bauer Fellow, Faculty of Arts and Science Center for Systems Biology**
Harvard University, Cambridge MA, USA

EDUCATION & TRAINING

2007-2012 **Ph.D. in Immunology**
Harvard Medical School, Boston MA, USA
Boehringer Ingelheim Fonds Fellow
Advisor: Nir Hacohen (Broad Institute of Harvard and MIT)

2005-2007 **M.S. in Biochemistry & Immunology**
Université de la Méditérranée, Marseille, France
Université de Bourgogne, Dijon, France
Advisors: Jean-Pierre Gorvel & Eric Vivier (Centre d'Immunologie Marseille-Luminy)

2002-2005 **B.S. in Biochemistry**
Université de Bourgogne, Dijon, France

Other research and training experiences:

Summer of 2013 **Cold Spring Harbor Laboratory**, Course in Programming for Biology
Summer of 2006 **The Scripps Research Institute**, La Jolla, USA (Bruce Beutler)
Summer of 2005 **Research Institute for Microbial Diseases**, Osaka, Japan (Shizuo Akira)
Summer of 2004 **National Institute for Agricultural Research**, Dijon, France (Philippe Lemanceau)

AWARDS & HONORS

- NIH Director's New Innovator Award 2018
- Elliott and Ruth Sigal Melanoma Research Alliance Young Investigator Award 2018
- Harvard University Center for AIDS Research Scholar Award 2015
- The William F. Milton Fund Award, Harvard Medical School 2015
- Bauer Fellowship, Harvard University 2012-2017
- Harold M. Weintraub Graduate Student Award, Fred Hutchinson Cancer Center 2012

- Jeffrey Modell Award in Immunology, Harvard Medical School 2012
- Ph.D. Fellowship, Boehringer Ingelheim Fonds 2009-2011
- Graduate Fellowship, Harvard Medical School 2007-2009
- National Ph.D. Fellowship, French Government – declined 2007
- RIKEN RCAI International Summer Program, Japan 2007
- National Scholarship for Master Studies, French Government 2006-2007
- Undergraduate Summer Research Fellowship, Region of Burgundy, France 2005 & 2006
- Undergraduate Summer Research Fellowship, University of Burgundy, France 2005 & 2006

PEER-REVIEWED PUBLICATIONS

Independent Research (* = undergraduate co-author)

18. Pandey S, Takahama M, Gruenbaum A, Zewde M, Cheronis K, **Chevrier N**. (**In Press**) A whole-tissue RNA-seq toolkit for organism-wide studies of gene expression. *Nature Protocols*.

17. **Chevrier N**. (**2019**) Decoding the Body Language of Immunity: Tackling the Immune System at the Organism Level. *Current Opinion in Systems Biology* 18, 19-26.

16. Kadoki M, Patil A, Thaiss C*, Brooks DJ*, Pandey S, Deep D*, Alvarez D, von Andrian UH, Wagers AJ, Nakai K, Mikkelsen T, Soumillon M, **Chevrier N**. (**2017**) Organism-level analysis of vaccination reveals networks of protection across tissues. *Cell* 171(2):398-413.

15. Mertins P, Przybylski D, Yosef N, Qiao J, Clauser K, Raychowdhury R, Eisenhaure TM, Maritzen T, Haucke V, Satoh T, Akira S, Carr SA, Regev A, Hacohen N, **Chevrier N**. (**2017**) An Integrative Framework Reveals Signaling-to-Transcription Events in Toll-like Receptor Signaling. *Cell Reports* 19(13):2853-2866.

14. Sage PT, Ron-Harel N, Juneja V, Sen D, Maleri S, Sungnak W, Kuchroo V, Haining N, **Chevrier N**, Haigis M, Sharpe A. (**2016**) Suppression by TFR cells leads to durable and selective inhibition of B cell effector functions. *Nature Immunology* 17(12):1436-1446.

Graduate and Undergraduate Research (* = equal contribution)

13. Mostafavi S, Yoshida H, Moodley D, LeBoité H, Rothamel K, Raj T, Ye CJ, **Chevrier N**, Zhang SY, Feng T, Lee M, Casanova JL, Clark JD, Hegen M, Telliez JB, Hacohen N, De Jager PL, Regev A, Mathis D, Benoist C; Immunological Genome Project Consortium. (**2016**). Parsing the Interferon Transcriptional Network and Its Disease Associations. *Cell* 164(3):564-78.

12. Jovanovic M, Rooney MS, Mertins P, Przybylski D, **Chevrier N**, Satija R, Rodriguez EH, Fields AP, Schwartz S, Raychowdhury R, Mumbach MR, Eisenhaure T, Rabani M, Gennert D, Lu D, Delorey T, Weissman JS, Carr SA, Hacohen N, Regev A. (**2015**). Immunogenetics. Dynamic profiling of the protein life cycle in response to pathogens. *Science* 347(6226):1259038.

11. Maier VK, Feeney CM, Taylor JE, Creech AL, Qiao JW, Szanto A, Das PP, **Chevrier N**, Cifuentes-Rojas C, Orkin SH, Carr SA, Jaffe JD, Mertins P, Lee JT. (**2015**). Functional Proteomic Analysis of Repressive Histone Methyltransferase Complexes Reveals ZNF518B as a G9A Regulator. *Mol Cell Proteomics* 14(6):1435-46.

10. Tonti E, Jiménez de Oya N, Galliverti G, Moseman EA, Di Lucia P, Amabile A, Sammicheli S, De Giovanni M, Sironi L, **Chevrier N**, Sitia G, Gennari L, Guidotti LG, von Andrian UH, Iannacone M. (**2013**). Bisphosphonates target B cells to enhance humoral immune responses. *Cell Reports* 5(2):323-30.

9. Gat-Viks I, **Chevrier N**, Wilentzik R, Eisenhaure T, Raychowdhury R, Steuerman Y, Shalek A, Hachohen N, Amit I, Regev A. (**2013**). Multi-stimulus responsiveness quantitative trait loci (reQTLs) analysis reveals new components and wiring in regulatory circuits. *Nature Biotechnology* 31(4):342-9.

8. Salcedo SP, **Chevrier N**, Santos Lacerda TL, Ben Amara A, Gerart S, Gorvel VA, de Chastellier C, Blasco JM, Mege JL, Gorvel JP. (**2013**). Pathogenic Brucellae replicate in human trophoblasts. *Journal of Infectious Diseases* 207(7):1075-83.

7. Shalek AK, Gaublomme JT, Wang L, Yosef N, **Chevrier N**, Andersen MS, Robinson JT, Pochet N, Neuberg D, Gertner RS, Amit I, Brown JR, Hacohen N, Regev A, Wu CJ, Park H. (**2012**). Nanowire-mediated delivery enables functional interrogation of primary immune cells: application to the analysis of chronic lymphocytic leukemia. *Nano Letters* 12(12):6498-504.

6. Garber M, Yosef N, Goren A, Raychowdhury R, Thielke A, Guttman M, Robinson J, Minie B, **Chevrier N**, Itzhaki Z, Blecher-Gonen R, Bornstein C, Amann-Zalcenstein D, Weiner A, Friedrich D, Meldrim J, Ram O, Chang C, Gnirke A, Fisher S, Friedman N, Wong B, Bernstein BE, Nusbaum C, Hacohen N, Regev A, Amit I. (**2012**). A High-Throughput Chromatin Immunoprecipitation Approach Reveals Principles of Dynamic Gene Regulation in Mammals. *Molecular Cell* 47(5):810-22.

5. Moseman EA, Iannacone M, Bosurgi L, Tonti E, **Chevrier N**, Tumanov A, Fu YX, Hacohen N, von Andrian UH. (**2012**). B cell maintenance of subcapsular sinus macrophages protects against a fatal viral infection independent of adaptive immunity. *Immunity* 36(3):415-26.

4. **Chevrier N**, Mertins P, Artyomov MN, Shalek AK, Iannacone M, Ciaccio MF, Gat-Viks I, Tonti E, DeGrace MM, Clauser KR, Garber M, Eisenhaure TM, Yosef N, Robinson JT, Sutton A, Andersen MS, Root DE, von Andrian U, Jones RB, Park H, Carr SA, Regev A*, Amit I*, Hacohen N*. (**2011**). Systematic Discovery of TLR Signaling Components Delineates Viral-Sensing Circuits. *Cell* 147(4):853-67.

3. Guia S, Jaeger BN, Piatek S, Mailfert S, Trombik T, Fenis A, **Chevrier N**, Walzer T, Kerdiles YM, Marguet D, Vivier E, Ugolini S. Confinement of activating receptors at the plasma membrane controls natural killer cell tolerance. (**2011**). *Science Signaling* 4(167):ra21.

2. Amit I, Garber M*, **Chevrier N***, Leite AP*, Donner Y*, Eisenhaure T, Guttman M, Grenier JK, Li W, Zuk O, Schubert LA, Birditt B, Shay T, Goren A, Zhang X, Smith Z, Deering R, McDonald RC, Cabili M, Bernstein BE, Rinn JL, Meissner A, Root DE, Hacohen N, Regev A. (**2009**). Unbiased reconstruction of a mammalian transcriptional network mediating pathogen responses. *Science* 326, 257-263.

1. Uematsu S*, Jang MH*, **Chevrier N**, Guo Z, Kumagai Y, Yamamoto M, Kato H, Sougawa N, Matsui H, Kuwata H, Hemmi H, Coban C, Kawai T, Ishii KJ, Takeuchi O, Miyasaka M, Takeda K, Akira S. (**2006**). Detection of Pathogenic Intestinal Bacteria by Toll-like Receptor 5 on Intestinal CD11c+ Lamina Propria Cells. *Nature Immunology* 7(8):868-74.

ORAL COMMUNICATIONS

Invited Talks (Since Fall 2017) (completed 17 in total)

- 42nd Annual Meeting of the Molecular Biology Society of Japan, Fukuoka, Japan (**Dec 2019**)
- University of Illinois at Chicago, Microbiology & Immunology Department Seminar, Chicago, USA (**Nov 2019**)
- UChicago Cancer Center Symposium, Chicago, USA (**May 2019**)
- Chan Zuckerberg Initiative Inflammation Workshop, San Francisco, USA (**May 2019**)
- Skin TRM cells in Homeostasis, Infection, and Immune-Mediated Diseases, NIH NIAID, Rockville, USA (**Apr 2019**)
- 1st Systems Immunology Meeting, Cold Spring Harbor Laboratory, USA (**Mar 2019**)

- University of California San Francisco Immuno-X Seminar, San Francisco, USA (**Feb 2019**)
- WashU & UChicago Joint Immunology Retreat, Bloomington, USA (**Oct 2018**)
- 2nd Annual Meeting on Physical concepts and computational models in immunology, Paris, France (**Sep 2018**)
- Imagine institute, Paris, France (**Sep 2018**)
- The 17th Awaji International Forum on Infection and Immunity, Awaji, Japan (**Sep 2018**)
- NIH National Cancer Institute, Bethesda, USA (**Jun 2018**)
- Gene Expression and Signaling in the Immune System, Cold Spring Harbor Laboratory, USA (**Apr 2018**)
- The University of Chicago, Committee on Immunology Seminar Series, Chicago, USA (**Jan 2018**)
- Institute for Medical Sciences, University of Tokyo, Tokyo, Japan (**Nov 2017**)
- Institute for Virus Research, Kyoto University, Kyoto, Japan (**Nov 2017**)
- Biomedical Sciences Cluster Retreat, The University of Chicago, Chicago, USA (**Oct 2017**)

Invited and Contributed Talks (Prior to Fall 2017)

- Keystone Symposium Viral Immunity: Mechanisms and Consequences, Santa Fe, USA (**Feb 2017**)
- Rowland Institute at Harvard, Cambridge, USA (**April 2015**)
- The Ragon Institute of MGH, MIT, and Harvard, Cambridge, USA (**Jan 2014**)
- Japanese Society for Immunology Annual Symposium, Chiba, Japan (**Dec 2013**)
- Institute for Medical Sciences, University of Tokyo, Tokyo, Japan (**Dec 2013**)
- Research Institute in Microbial Diseases, University of Osaka, Osaka, Japan (**Dec 2013**)
- LACI/EMBO Workshop, CIML, Marseille, France (**Jan 2013**)
- Keystone Symposium Immunological Mechanisms of Vaccination, Ottawa, Canada (**Dec 2012**)
- TCUID Symposium, Osaka University, Osaka, Japan (**Oct 2012**)
- Weintraub Graduate Student Award Symposium, Fred Hutchinson Cancer Research Center, Seattle, USA (**May 2012**)
- Gene Expression and Signaling in the Immune System, Cold Spring Harbor Laboratory, USA (**Apr 2012**)
- Keystone Symposium Dendritic Cells and the Initiation of Adaptive Immunity, Santa Fe, USA (**Feb 2011**)
- Broad Institute Board of Scientific Counselors meeting (Jan 2010 & 11), and Annual Retreat (**Nov 2010**)
- Harvard Medical School Immunology Program Retreat, Boston, USA (**Oct 2010**)
- 8th North America Meeting for Boehringer Ingelheim Fonds fellows and alumni, Woods Hole, USA (**Sep 2010**)
- Boehringer Ingelheim Fonds Fellows seminar, Cold Spring Harbor Laboratory, USA (**Oct 2009**)
- Keystone Symposium Pattern Recognition Molecules and Immune Sensors of Pathogens, Banff, Canada (**Feb 2009**)
- RIKEN Research Center for Allergy and Immunology International Summer Program, Yokohama, Japan (**Jul 2007**)

TEACHING

Quantitative Immunobiology (MENG 24800/34800) The University of Chicago, Winter Quarter 2019
Role: Instructor
Description: Designed and taught a new advanced undergraduate- and graduate- level course covering quantitative approaches to immunology through lectures and a computational, hands-on laboratory.

Discovery and Translation of Molecular Therapeutics (CHEM 33900), The University of Chicago, Spring Quarter 2019
Role: Guest Lecturer
Delivered a lecture on immuno-therapeutics and vaccines.

Integrated Science (LS50), Harvard University, Fall Semester 2016 and Spring Semester 2017
Role: Laboratory Instructor
Designed and taught the experimental and computational laboratory component of an interdisciplinary course for first-year undergraduates. Students worked on an original research project in immuno-oncology.

Immunology (BIOS E-60), Harvard Extension School, Spring Semesters 2010 to 2016
Role: Teaching Fellow

Immunology 201, Harvard Medical School, Fall Semester 2008
Role: Teaching Fellow