# Michel DuPage, PhD

University of California, Berkeley

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#### **EDUCATION**

PhD Massachusetts Institute of Technology, Department of Biology 2011

BA University of California, Berkeley, Department of Molecular and Cell Biology 2000

• Departmental "Outstanding Scholar Award" (1st in graduating class)

**RESEARCH AIM:** *Identify and target mechanisms that reprogram the immunosuppressive micro- environment selectively in tumors to improve cancer immunotherapies.* 

# **RESEARCH EXPERIENCE**

Ass Prof Epigenetic mechanisms controlling the plasticity of immune responses in disease 2017- pres.

University of California, Berkeley, Department of Molecular & Cell Biology

Fellow Control of T regulatory cell function to enhance immunotherapies against cancer 2016-2017

University of California, San Francisco, Department of Microbiology & Immunology

Independent Investigator, Parker Institute for Cancer Immunotherapy

**Postdoc** Investigating mechanisms controlling regulatory T cell plasticity in autoimmunity 2011- 2016

University of California, San Francisco, Diabetes Center

Jeffrey A. Bluestone (advisor)

PhD Modeling cancer immunosurveillance in genetically engineered mouse models 2004- 2011

Massachusetts Institute of Technology, Koch Institute for Integrative Cancer Res.

Tyler Jacks (advisor)

RA Antibody development, engineering, and humanization 2000- 2003

Genentech, Inc., Department of Immunology & Antibody Engineering

Andrew C. Chan (manager)

**URAP** Genetic control of germline sex determination in Drosophila melanogaster 1998- 2000

University of California, Berkeley, Department of Genetics

Thomas W. Cline (advisor)

### **HONORS & AWARDS**

Parker Institute for Cancer Immunotherapy Fellowship	2016- pres.
Helen Hay Whitney Foundation Postdoctoral Fellowship	2013- 2016
Ruth L. Kirschstein Institutional National Research Service Award (T32)	2011- 2012
Margaret A. Cunningham Immune Mechanisms in Cancer Fellowship	2006
Dupont MIT Alliance fellow	2003- 2004
Outstanding Scholar of the Department of Molecular and Cell Biology, UC Berkeley	2000
Honors Undergraduate Research in Molecular and Cell Biology	1999- 2000
Phi Beta Kappa Society	2000- pres.
Golden Key National Honor Society	1997- 2000
Robert C. Byrd Honors Scholarship recipient	1996- 2000

### **TEACHING & MENTORSHIP EXPERIENCE**

Mentor, clinical fellow in Bluestone laboratory, trainee is now Clinical Director at Genentech	2015-pres.
Manager, Staff Research Associate, trainee has grown from volunteer to SRAII	2013-pres.
Mentor, graduate rotation project in Bluestone laboratory, trainee joined laboratory	2013
Mentor, high school intern for UCSF Science & Health Education Partnership program	2012
Mentor, graduate rotation project in Jacks laboratory, trainee completed PhD in laboratory	2010
Mentor, MIT Undergraduate Research (UROP), trainee completed PhD at Stanford	2008-2010
Mentor, MIT Undergraduate Research (UROP), trainee completed PhD at UC Berkeley	2006-2007
Teaching assistant, Immunology, MIT with H. Ploegh, J. Chen, L. Steiner	2006
Teaching assistant, Introductory Biology, MIT with E. Lander, R. Weinberg	2004

## **PUBLICATIONS**

- 1. Wang DQ, Quiros J, Mahuron K, Pai CS, Ranzani V, Young A, Silveria S, Harwin T, Abnousian A, Pagani M, Rosenblum MD, Van Gool F, Fong L, Bluestone JA, **DuPage M**. Targeting EZH2 reprograms intratumoral regulatory T cells to enhance cancer immunity. *Cell Rep* (in press).
- 2. **DuPage M**, Chopra G, Quiros J, Rosenthal WL, Morar MM, Holohan D, Zhang R, Turka L, Marson A, Bluestone JA. The chromatin-modifying enzyme Ezh2 is critical for the maintenance of regulatory T cell identity after activation. *Immunity* (2015) 42: 227-238.
- 3. Huynh A, **DuPage M**, Priyadharshini B, Sage PT, Quiros J, Borges CM, Townamchai N, Gerriets VA, Rathmell JC, Sharpe AH, Bluestone JA, Turka LA. Control of PI(3) kinase in Treg cells maintains homeostasis and lineage stability. *Nat Immunol* (2015) 16: 188-96.
- Joshi NS, Akama-Garren EH, Lu Y, Lee DY, Chang GP, Li A, **DuPage M**, Tammela T, Kerper NR, Farago AF, Robbins R, Crowley DM, Bronson RT, Jacks T. Regulatory T cells in tumor-associated tertiary lymphoid structures suppress anti-tumor T cell responses. *Immunity* (2015) 43: 579-590.
- 5. **DuPage M**, Mazumdar C, Schmidt LM, Cheung AF, Jacks T. Expression of tumour-specific antigens underlies cancer immunoediting. *Nature* (2012) 482: 405-409.
- 6. **DuPage M**, Cheung AF, Mazumdar C, Winslow MM, Bronson R, Schmidt LM, Crowley D, Chen J, Jacks T. Endogenous T cell responses to antigens expressed in lung adenocarcinomas delay malignant tumor progression. *Cancer Cell* (2011) 19: 72-85.
- 7. Winslow MM, Dayton TL, Verhaak R, Kim-Kiselak C, Snyder EL, Feldser DM, Hubbard D, **DuPage M**, Whittaker CA, Hoersch S, Yoon S, Crowley D, Bronson RT, Chiang DY, Meyerson M, Jacks T. Suppression of lung adenocarcinoma progression by Nkx2-1. *Nature* (2011) 473: 101-104.
- Cheung AF, **DuPage M**, Dong HK, Chen J, Jacks T. Regulated expression of a tumor-associated antigen reveals multiple levels of T-cell tolerance in a mouse model of lung cancer. <u>Cancer Res</u> (2008) 68: 9459-68.

### **REVIEWS**

- 9. **DuPage M**, Bluestone JA. Harnessing the plasticity of CD4+ T cells to treat immune-mediated disease. *Nat Rev Immunol* (2016) 16: 149-163.
- 10. **DuPage M**, Jacks T. Genetically engineered mouse models of cancer reveal new insights about the antitumor immune response. *Curr Opin Immunol* (2013) 25: 192-199.
- 11. **DuPage M\***, Dooley AL\*, Jacks T. Conditional mouse lung cancer models using adenoviral or lentiviral delivery of Cre recombinase. *Nat Protoc* (2009) 4: 1064-1072. \*equal contribution