

Jeremy J. Racine

Curriculum Vitae

600 Main Street Bar Harbor, Maine 04609 USA jeremy.racine@jax.org 207-288-6404

Academic Background/Education

<u>Year</u>	<u>Degree</u>	<u>Location</u>
2007-2013	Ph.D.	Irell & Manella Graduate School of Biological Sciences, Duarte, CA. Dissertation: "Induction of Mixed Chimerism For Reversal of Autoimmunity in NOD Mice"
2006	Non Degree Courses: Biochemistry Immunology	Harvard Extension School, Cambridge, MA
2005	Non Degree Courses: Biochemistry Immunology	Harvard Extension School, Cambridge, MA
2000-2004	B.A. (Biochemistry)	Cornell University, Ithaca, NYC

Research Experience

6/2014-Current	Postdoctoral Fellow, Laboratory of Dr. David Serreze, Jackson Laboratory, Bar Harbor, ME.
7/2013-5/2014	Postdoctoral Fellow, Laboratory of Dr. Defu Zeng, Department of Diabetes, Beckman Research Institute, City of Hope, Duarte, CA.
8/2008-7/2013	Ph.D. Candidate, Laboratory of Dr. Defu Zeng, Irell & Manella Graduate School of Biological Sciences, Duarte, CA.
9/2004-8/2007	Research Technician I, Laboratory of Dr. Mitzi Kuroda, Brigham & Women's Hospital/Harvard Partners Center for Genetics and Genomics, Cambridge, MA.
5/2001-8/2001	Summer Student, Laboratory of Dr. Peter Aaronson, Yale School of Medicine, New Haven, CT.
5/2000-8/2000	Fellowship/Intern NIDDK of CT, Laboratory of Dr. Peter Aaronson, Yale School of Medicine, New Haven, CT.

Awards/Honors/Fellowships

2014-Current	JAX Postdoctoral Scholar
2012	Rachmiel Levine Scientific Communications Award - 1st place Scientific Talk - "Reversal of T and B Cell Autoimmunity in Type 1 Diabetes via Induction of Mixed Chimerism". Presentation at City of Hope Beckman Research Institute RSO Advance. April 30 2012. Lake Arrowhead, CA.
2008	Helen and Morgan Chu Graduate Student Fellowship
2007-2008	H.N. and Frances C. Berger Fellow

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Additional Nominations

- 2012 Selected as Irell & Manella Nominee for Harold M. Weintraub Graduate Student Awards
- 2010 Selected as Irell & Manella Nominee for Lindau Nobel Laureate Meetings

Professional Societies

- 2014-Present American Diabetes Association
- 2014-Present American Association For The Advancement of Science
- 2014-Present American Society for the Advancement of Cytometry
- 2014-Present National Postdoctoral Association
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Advanced Coursework

- 2008 AAI Advanced Course in Immunology
- 2014 55th Annual Short Course on Medical and Experimental Genetics
- 2014 Cyto University (ISAC)
Cyto 2013 Advanced Data Analysis (archive)
Preventing GI/GO Syndrome Instrument Standardization
Flow Cytometry Controls
Visualizing Data and Identifying Populations
Data Analysis in the Cloud
Mathematical Modeling for Cytometry
Highlights of R-based Flow Cytometry Packages/FlowCAP
Data Mining For Predictive Subsets: FlowType/Rchyoptymyx
SPADE
Cyto 2013 Scientific Tutorials (archive)
Apoptosis, Autophagy and DNA Damage
Analysis and Sorting of Rare Populations
Forensic Flow Cytometry (live webinar)
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Teaching Experience

- 2010 Irell & Manella Graduate School of Biological Sciences – Teaching Assistant: Current Topics in Biology (Graduate Level Course)
- 2002-2004 Cornell University Emergency Medical Service – Crew Chief Preceptor
- 2002-2003 Cornell University Emergency Medical Service – Training Officer
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University Service

2008-2009

Irell & Manella Graduate School of Biological Sciences – Graduate Student Organization

2008-2009

Treasurer

2008-2010

Recruitment Committee

2009-2010

Recruitment Co-Chair

2000-2004

Cornell University Emergency Medical Service

2002-2004

Crew Chief

2002-2004

Crew Chief Preceptor

2002-2003

Executive Board – Training Officer

2003-2004

Executive Board – Director of Operations

Publications (published/in press)

1. Wang M*, **Racine JJ***, Zhang M*, Wu T, Shen C, Siswanto K, Zeng D. "MHC-mismatched chimerism is required for transplantation tolerance in autoimmune recipients". *Journal of Immunology*. 2014, 193(4):2005-15. * *These authors contributed equally.*
2. Johnston H, Xu Y, **Racine JJ**, Cassady K, Ni X, Wu T, Chan A, Forman S, Zeng D. "Administration of Anti-CD20 mAb is Highly Effective in Preventing But Ineffective in Treating cGVHD While Preserving Strong GVL Effects." *Biology of Blood And Marrow Transplantation*. 2014, 20(8):1089-103.
3. He W, Li X, **Racine JJ**, Johnston H, Li X, Li N, Cassady K, Liu C, Deng R, Martin P, Forman S, Zeng D. "Depletion of host CCR7+ Dendritic Cells Prevented Donor T Cell Tissue Tropism in Anti-CD3-Conditioned Recipients". *Biology of Blood and Marrow Transplantation*. 2014, 20(7):920-8.
4. **Racine JJ**, Wang M, Zhang M, Zeng D. "Induction of Mixed Chimerism Depletes Pre-Existing and De Novo Developed Autoreactive B Cells in Autoimmune NOD Mice". *Diabetes*. 2014. 63(6):2051-62.
5. Wu R, Young J, Johnston H, Xiong N, Deng R, **Racine J**, Wang M, Wang A, Todorov A, Wang J, Zeng D. "Thymic Damage, Impaired Negative Selection, and Development of Chronic Graft-versus-Host Disease Caused by Donor CD4+ and CD8+ T Cells". *Journal of Immunology*. 2013, vol. 191(1):488-499.
6. **Racine JJ** and Zeng D. "Induction of Mixed Chimerism for Reversal of Autoimmunity in Type 1 Diabetes" *J. Clinical & Cellular Immunol.* 2013, S2 006.
7. Young JS, Wu T, Chen Y, Zhao D, Liu H, Yi T, Johnston H, **Racine J**, Li X, Wang A, Todorov I, Zeng D. "Donor B Cells in Transplants Augment Clonal Expansion and Survival of Pathogenic CD4+ T Cells That Mediate Autoimmune-like Chronic Graft-versus-Host Disease". *J Immunol.* 2012, 189(1):222-33.
8. Wang M, **Racine JJ**, Song X, Li X, Nair I, Liu H, Avakian-Mansoorian A, Johnston HF, Liu C, Shen C, Atkinson M, Todorov I, Kandeel F, Forman S, Wilson B, Zeng D. "Mixed chimerism and growth factors augment β cell regeneration and reverse late-stage type 1 diabetes". *Science Translational Medicine*, 2012, 4(133):133ra59.
9. **JJ Racine**, M Wang, C Zhang, C Lin, H Liu, I Todorov, M Atkinson, Zeng D. "Induction of mixed chimerism with MHC-mismatched but not matched bone marrow transplants results in thymic deletion of host-type autoreactive T cells in NOD mice". *Diabetes*, 2011, 60: 555-564.

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10. Zhang C*, Wang M*, **Racine JJ**, Liu H, Lin CL, Nair I, Lau J, Cao YA, Todorov I, Atkinson M, Zeng D. "Induction of chimerism permits low-dose islet grafts in the liver or pancreas to reverse refractory autoimmune diabetes". *Diabetes*, 2010, 59:2228-2236.
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Presentation/Abstracts – Scientific Audiences

Racine, J. "Mixed Chimerism Reverses Autoimmunity in NOD Mice". March 4 2014. JAX Postdoctoral Scholar Recruitment Seminar. Bar Harbor, ME.

Racine J. "Reversal of T and B Cell Autoimmunity in Type 1 Diabetes via Induction of Mixed Chimerism". Presentation at City of Hope Beckman Research Institute RSO Advance. April 30 2012. Lake Arrowhead, CA.

Racine J. "Induction of mixed hematopoietic chimerism to reverse autoimmunity in type 1 diabetes." Presentation at Postdoc and Graduate Research Forum. January 5 2011. Duarte, CA.

Racine J et al. "Induction of mixed chimerism with MHC-mismatched but not matched BM transplants results in thymic deletion of de novo developed host-type autoreactive T cells in autoimmune NOD mice". Poster presented at City of Hope Beckman Research Institute RSO Advance. April 25-27 2010. Lake Arrowhead, CA.

Racine J et al. "Induction of mixed chimerism with MHC-mismatched but not matched BM transplants results in thymic deletion of de novo developed host-type autoreactive T cells in autoimmune NOD mice". Poster presented at Rachmiel Levine Symposium. March 14-17 2010. Las Vegas Nevada.

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Presentation – Lay Audiences

Racine, J. “Bone Marrow Transplantation As A Curative Therapy for Type 1 Diabetes”. City of Hope Visitor’s Services: Young Furniture Association. April 15th 2014. Duarte, CA.

Racine, J. “Untitled Talk at the Beckman Court yard”. Topics: Zeng Lab Overview, HCT, GVHD, HCT to Cure Diabetes. City of Hope Visitor’s Services: 57th Annual Lion’s Club International Tribute. March 30th 2014. Duarte, CA.

Racine, J. “Untitled Talk at the Gonda Diabetes Building Timeline”. Topics: Diabetes Research at City of Hope, Zeng Lab Overview. Using HCT To Cure Diabetes. COH Visitor’s Services: National Home Furnishings Industry Council. February 11th 2014. Duarte, CA.

Racine, J. “Untitled In-Lab Talk”. Topics: Zeng Lab Overview. Preventing GVHD, and Using HCT To Cure Diabetes. COH Visitor’s Services: Communication Workers Local 9003. September 13th 2013. Duarte, CA.

Racine, J. “Untitled In-Lab Talk”. Topics: Zeng Lab Overview. Preventing GVHD, and Using HCT To Cure Diabetes. COH Visitor’s Services: AT&T Communications Workers of America 9503. September 13th 2013. Duarte, CA.

Racine, J. “Untitled In-Lab Talk”. Topics: Zeng Lab Overview. Using HCT To Cure Diabetes. COH Visitor’s Services: Music & Entertainment Industry. October 19th 2012. Duarte, CA.

Racine, J. “Untitled In-Lab Talk”. Topics: Zeng Lab Overview. HCT to Cure Diabetes. COH Visitor’s Services: Pasadena Councilmember Chris Holden. August 24th 2012. Duarte, CA.

Racine, J. “Untitled In-Lab Talk”. Topics: Zeng Lab Overview. HCT to Reverse Diabetes. COH Visitor’s Services: George Tsai, Honoree for the National Home Furnishings Industry. August 16th 2012. Duarte, CA.

Racine, J. “Untitled In-Lab Talk”. Topics: BMT To Treat Diabetes. COH Visitor’s Services: Universal Music Group. August 24th 2011. Duarte, CA.

Racine, J. “Untitled In-Lab Talk”. Topics: Using Bone Marrow Transplantation To Cure Diabetes. COH Visitor’s Services: Angela Fisher talent liaison for Black Entertainment Television (BET) and Centric Television. June 21st 2011. Duarte, CA.

Racine, J. “Untitled Lunch Talk”. Topics: Zeng Lab – Bridging Cancer and Diabetes Research. COH Visitor’s Services: UPS Managers. March 2nd 2011. Duarte, CA.

Racine, J. “Untitled Tour Talk”. Topics: Zeng Lab – Can BMT Reverse Diabetes? COH Visitor’s Services: Parson’s Family. March 18th 2009. Duarte, CA.