

CURRICULUM VITAE

Name: Jason Weinstein, Ph.D.

Position: Assistant Professor, Chancellor Scholar, Department of Medicine, Center for Immunity and Inflammation

School: Rutgers New Jersey Medical School

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205 South Orange Ave.
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Education and Training:

2009-2016 Postdoctoral Fellow, Rheumatology
Yale University School of Medicine, New Haven, CT
Advisor: Joe Craft
Research topic: *Regulation of development and function of Tfh cells in germinal center responses*

2003-2009 Ph.D., Biomedical Sciences -Immunology
University of Florida, Gainesville, FL
Advisor: Westley Reeves
Dissertation title: *The role of ectopic lymphoid tissue in the pathogenesis of humoral autoimmunity*

1997-2003 B.S., Biology
Northeastern University, Boston, MA

Career/Academic Appointments:

2009-15 Postdoctoral Fellow in Department of Internal Medicine, Section of Rheumatology, Yale University School of Medicine, New Haven, CT

2015-16 Associate Research Scientist, Department of Internal Medicine, Section of Rheumatology, Yale University School of Medicine, New Haven, CT

2014-present Lecturer, Molecular Biophysics. & Biochemistry, Yale University School of Medicine, New Haven, CT

2016-present Instructor, Department of Internal Medicine, Section of Rheumatology, Yale University School of Medicine, New Haven, CT

2017-present Adjunct Lecturer (Course Director-Immunology), University of New Haven, West Haven, CT

2018-present Assistant Professor (tenure-track), Chancellor Scholar, Department of Medicine, Center for Immunity and Inflammation, Rutgers New Jersey Medical School

Professional Honors & Recognition

International/National/Regional

2005	American College of Rheumatology Medical Student Achievement Award
2006	American College of Rheumatology Medical Student Achievement Award
2008	UF Medical Guild Research Competition 1 st place Immunology/Microbiology
2008	Bronze Medal, 2008 Medical Guild Graduate Student Research Competition
2008	Graduate Student for Outstanding Research Award
2009	Arthritis Foundation Fellowship Recipient
2016	Yale Human Translational Immunology: Best Poster by Junior Faculty/Postdoc
2017	Yale Center for Clinical Investigation (YCCI) Scholar Award
2017	Ben Pernis Memorial Travel Award-FASEB Autoimmunity

Lectures and Courses

2007-08	Introductory course on Methods in Biomedical Research, University of Florida: Course Co-director/lecturer for this full semester undergraduate course for undergraduates majoring in Biology and Molecular Biology & Biochemistry majors. The course covered the design and theory behind many common lab experimental assays such as RNA and DNA purification, PCR, western blots and flow cytometry.
2015-2018	Molecular Foundations of Medicine Course for first year medical students at Yale, Biochemistry section leader. Weekly seminars with 10-12 first year medical students covering primary research papers and case studies related to metabolism and molecular biology.
2017-2018	Immunology, CMBI-6636, University of New Haven: Course director/lecturer for this full semester graduate course which covers the basic concepts of immunology. The course covers the function of the different components of the immune system and the interrelationship and complexities between innate vs. adaptive immunity. Class was a seminar-based and included a journal club component and clinical case studies.
2017-2018	Introduction to Immunology, Achillion Pharmaceuticals: Course director/lecturer for this summer course which covers the basic concepts of immunology. The course covers the basics of the different components of the immune system and the interrelationship and complexities of how these contribute to disease and therapeutics.

Current Grants

Agency: NIH/NIAMS

I.D.# 5K01 AR067892-02

Title: "Transcriptional regulation of T follicular helper cells in lupus"

P.I.: Jason Weinstein, Ph.D.

Percent effort: 75%

Direct costs per year: \$120,000

Total costs for project period: \$600,000

Project period: 06/01/2015 – 05/31/2020

Agency: NIH/NIAMS

I.D.# 1 R41 AR073097-01A1

Title: "Therapeutic Inhibition of BCL6 in Systemic Lupus Erythematosus"

P.I.: Jason Weinstein, Ph.D.
Percent effort: 15%
Direct costs per year: \$121,490
Total costs for project period: \$121,490
Project period: 08/01/2018 – 07/31/2019

Agency: NIH/NIAMS
I.D.# R01AR073912
Title: “Title: T cell regulation of pathogenic B cell in systemic autoimmunity”
P.I.: Jason Weinstein, Ph.D.
Percent effort: 15%
Direct costs per year: \$250,000
Total costs for project period: \$1,250,000
Project period: 04/01/2019 – 03/31/2024

Past Grants

Agency: Arthritis Foundation
I.D.# Postdoctoral Fellowship
Title: “T follicular helper cells in immunity and autoimmunity”
P.I.: Jason Weinstein, Ph.D.
Percent effort: 90%
Total costs for project period: \$50,000
Project period: 06/01/2010 – 05/31/2013

Agency: NIH/NIAMS
I.D.# P30 AR053495-01A1
Title: “STAT4 regulation of pathogenic follicular helper T cells in autoimmunity”
P.I.: Jason Weinstein, Ph.D.
Percent effort: 12.5%
Direct costs per year: \$25,000
Total costs for project period: \$25,000
Project period: 05/01/2016 – 08/31/2017

Agency: YCATS/NIH
I.D.# UL1 TR001863
Title: “STAT4 regulation of pathogenic follicular helper T cells in autoimmunity”
P.I. Jason Weinstein
Percent Effort: 12.5%
Direct cost per year: \$20,000
Total costs for project period: \$20,000
Project period: 12/06/2016 – 12/05/2018

Invited Speaking Engagements, Presentations, Symposia & Workshops:

- 2017: University of Florida - Immunology and Microbiology
- 2017: University of Florida – Career Development Seminar
- 2018: Stem Cell Technologies- Lunch and Learn Seminar Series
- 2018: Yale-Rockefeller Clinical investigation Day -Career seminar

Peer-Reviewed Presentations & Symposia Given at Meetings:

International/National

- 2019: Keystone Symposia (B cell-T cell Interactions), Keystone, Co “STAT4 Regulates Pathogenic IL21 and IFN- γ Production in T Follicular Helper (Tfh) Cells in Murine and Human Lupus.”
- 2017: FASEB summer research conference (Autoimmunity), Saxtons River, VT. “STAT4 Regulates Pathogenic IL-21 and IFN- γ Production in Lupus T Follicular Helper (Tfh) cells”.
- 2017: Keystone Symposia (B Cells and T Follicular Helper Cells- Controlling Long-Lived Immunity), Whistler, BC, Canada. “The transcriptional regulators STAT4 and T-bet cooperate in follicular helper T cells to fine-tune the viral specific humoral response”
- 2016: Keystone Symposia (T Follicular Helper Cells and Germinal Centers), Monterey, CA. “T-bet and STAT4 regulation is critical for IL-21 and IFN- γ production by follicular helper T cells in a viral response”
- 2015 FASEB summer research conference (Autoimmunity), Eaglewood Resort, Itasca, IL. “Reciprocal T-bet and STAT4 expression transcriptionally regulates continual production of IL-21 and IFN- γ in pathogenic Tfh cells in lupus”
- 2013 Cold Spring Harbor Laboratories: Gene Expression and signaling in the immune system, Cold Spring Harbor, NY. “Follicular helper T cells differentially express IL-21 and IL-4 to regulate the germinal center response”
- 2013 Cold Spring Harbor Laboratories: Harnessing Immunity to Prevent & Treat Disease meeting, Cold Spring Harbor, NY. “Harnessing Immunity to Prevent & Treat Disease meeting”
- 2013 FASEB summer research conference (Autoimmunity), Saxtons River, VT. “Follicular helper T cells sequentially produce IL-4 or IL-21 to regulate germinal center responses”
- 2011 FASEB summer research conference (Autoimmunity), Saxtons River, VT. “Upregulation of Bcl6 expression in follicular helper T Cells (T_{FH}) requires antigen-specific b cell help”
- 2011 American Association of Immunologists (AAI), San Francisco, CA. “Upregulation of Bcl6 expression in follicular helper t cells (T_{FH}) requires both dendritic and antigen-specific B cell help”
- 2008 BioSymposia Lupus and Autoimmunity, La Jolla, CA.” Lupus autoantibodies are secreted from TMPD induced ectopic lymphoid tissue”
- 2007 American Association of Immunologist (AAI), Miami, FL. “Accumulation of antigen-specific B and T cells in ectopic lymphoid tissue after immunization”
- 2006 American College of Rheumatology (ACR), Washington D.C. “Chronic inflammation response can promote antibody/autoantibody production”
- 2005 9th International Workshop on Autoantibodies (IWAA), Gainesville, Fl. “Antigen specific B cells can home to ectopic lymphoid tissue where they undergo somatic mutation to become autoreactive”

Professional Service

Journal Service:

Reviewer

- 2014-present Reviewer for *Immunopharmacology And Immunotoxicology*
- 2016-present The Journal of Rheumatology
- 2017-present Frontiers in Immunology: Autoimmune and Autoinflammatory Disorders
- 2018-present Cell Reports
- 2018-present Proceedings of the National Academy of Sciences (PNAS)

Professional Service for Professional Organizations

American Association of Immunologists
2008-2011 Member

Bibliography:

Peer-Reviewed Original Research

1. Nacionales DC, KM Kelly, PY Lee, H Zhuang, Y Li, **JS Weinstein**, E Sobel, Y Kuroda, J Akaogi, M Satoh and WH Reeves. Type I interferon production by tertiary lymphoid tissue developing in response to 2, 6, 10, 14 tetramethylpentadecane (pristane). *Am J Pathol.* 2006. 168: 1227-1240.
2. S Kalay Erbay, C Stewart, A Hassanein, A Fletcher, I Bhattacharyya, D Cohen, S Wesson, **J Weinstein**, R Lyons, and WH Reeves. Cutaneous mastocytosis in a patient with primary Sjogren's syndrome. *Am J Pathol.* 2006. 168(4):1227-40
3. Delano MJ, Scumpia PO, **Weinstein JS**, Coco D, Nagaraj S, Kelly-Scumpia KM, O'Malley KA, Wynn JL, Antonenko S, Al-Quran SZ, Swan R, Chung CS, Atkinson MA, Ramphal R, Gabrilovich DI, Reeves WH, Ayala A, Phillips J, Laface D, Heyworth PG, Clare-Salzler M, Moldawer LL. MyD88-dependent expansion of an immature GR-1(+)CD11b(+) population induces T cell suppression and Th2 polarization in sepsis. *J Exp Med.* 2007 Jun 11;204(6):1463-74.
4. Scumpia PO, Delano MJ, Kelly-Scumpia KM, **Weinstein JS**, Wynn JL, Winfield RD, Xia C, Chung CS, Ayala A, Atkinson MA, Reeves WH, Clare-Salzler MJ, Moldawer LL. Treatment with GITR agonistic antibody corrects adaptive immune dysfunction in sepsis. *Blood.* 2007 Nov 15;110(10):3673-81.
5. Kelly-Scumpia KM, Nacionales DC, Scumpia PO, **Weinstein JS**, Narain S, Moldawer LL, Satoh M, Reeves WH. In vivo adjuvant activity of the RNA component of the Sm/RNP lupus autoantigen. *Arthritis Rheum* 2007 Oct;56(10):3379-86.
6. Nacionales DC, Kelly-Scumpia KM, Lee PY, **Weinstein JS**, Lyons R, Sobel E, Satoh M, Reeves WH. Deficiency of the type I interferon receptor protects mice from experimental lupus. *Arthritis Rheum* 2007 Nov;56(11):3770-83.
7. Lee PY, **Weinstein JS**, Nacionales DC, Scumpia PO, Li Y, Butfiloski E, Van Rooijen N, Moldawer L, Satoh M, Reeves WH. A novel type I interferon-producing cell subset in murine lupus. *J Immunol.* 2008 Apr 1;180(7):5101-8.
8. **Weinstein JS**, Nacionales DC, Lee PY, Kelly-Scumpia KM, Yan X, Scumpia PO, Vale-Cruz DS, Sobel E, Satoh M, Chiorazzi N, Reeves WH. Co-localization of antigen-specific B and T cells within ectopic lymphoid tissue following immunization with exogenous antigen. *J Immunol.* 2008 Sep 1;181(5):3259-67.
9. Lee PY, Kumagai Y, Li Y, Takeuchi O, Yoshida H, **Weinstein JS**, Kellner ES, Nacionales DC, Barker T, Kelly-Scumpia K, van Rooijen N, Kawai T, Satoh M, Akira S, Reeves WH. TLR7-dependent and FcγR-independent production of type I interferon in murine lupus. *J Exp Med.* 2008 Dec 22;205(13):2995-3006
10. **Weinstein JS**, Nacionales DC, Yan X, Albesiano E, Lee PY, Kelly-Scumpia KM, Lyons R, Satoh M, Chiorazzi N, Reeves WH. B cell proliferation, somatic hypermutation, class switch recombination, and autoantibody production in ectopic lymphoid tissue in murine lupus. *J Immunol.* 2009 Apr 1;182(7):4226-36.*co-first author
11. Lee PY, Li Y, Kumagai Y, Xu Y, **Weinstein JS**, Kellner ES, Nacionales DC, Butfiloski EJ, van Rooijen N, Akira S, Sobel ES, Satoh M, Reeves WH. Type I interferon modulates monocyte recruitment and maturation in chronic inflammation. *Am J Pathol.* 2009 Nov;175(5):2023-33.

12. Kelly-Scumpia KM, Scumpia PO, Delano MJ, **Weinstein JS**, Cuenca AG, Wynn JL, Moldawer LL Type I interferon signaling in hematopoietic cells is required for survival in mouse polymicrobial sepsis by regulating CXCL10. *J Exp Med*. 2010 Jan 18.
13. Scumpia PO, Kelly-Scumpia KM, Delano MJ, **Weinstein JS**, Cuenca AG, Al-Quran S, Bovio I, Akira S, Kumagai Y, Moldawer LL. Cutting edge: bacterial infection induces hematopoietic stem and progenitor cell expansion in the absence of TLR signaling. *J Immunol*. 2010 Mar 1;184(5):2247-51
14. Poholek AC, Hansen K, Hernandez SG, Eto D, Chandele A, **Weinstein JS**, Dong X, Odegard JM, Kaech SM, Dent AL, Crotty S, Craft J. In vivo regulation of Bcl6 and T follicular helper cell development. *J Immunol*. 2010 Jul 1;185(1):313-26.
15. Kelly-Scumpia KM, Scumpia PO, **Weinstein JS**, Delano MJ, Cuenca AG, Nacionales DC, Wynn JL, Lee PY, Kumagai Y, Efron PA, Akira S, Wasserfall C, Atkinson MA, Moldawer LL. B cells enhance early innate immune responses during bacterial sepsis. *J Exp Med*. 2011 Aug 1;208(8):1673-82.
16. Barker TT, Lee PY, Kelly-Scumpia KM, **Weinstein JS**, Nacionales DC, Kumagai Y, Akira S, Croker BP, Sobel ES, Reeves WH, Satoh M. Pathogenic role of B cells in the development of diffuse alveolar hemorrhage induced by pristane. *Lab Invest*. 2011 Oct;91(10):1540-50.
17. Cui W, Liu Y, **Weinstein JS**, Craft J, Kaech SM. An interleukin-21-interleukin-10-STAT3 pathway is critical for functional maturation of memory CD8⁺ T cells. *Immunity*. 2011 Nov 23;35(5):792-805.
18. Xu Y, Lee PY, Li Y, Liu C, Zhuang H, Han S, Nacionales DC, **Weinstein J**, Mathews CE, Moldawer LL, Li SW, Satoh M, Yang LJ, Reeves WH. Pleiotropic IFN-dependent and -independent effects of IRF5 on the pathogenesis of experimental lupus. *J Immunol*. 2012 Apr 15;188(8):4113-21.
19. **Weinstein JS**, Delano MJ, Kelly-Scumpia KM, Nacionales DC, Lee PY, Scumpia PO, Switaneck JL, Moldawer LL, Reeves WH. Long term Anti-Sm-RNP antibodies are generated from plasma cell residing within TMPD induced ectopic lymphoid. *J Immunol*. 2013 Apr 15;190(8):3916-27.
20. Kumamoto Y, Linehan M, **Weinstein JS**, Laidlaw BJ, Craft JE, Iwasaki A. CD301b⁺ dermal dendritic cells drive T helper 2 cell-mediated immunity. *Immunity*. 2013 Oct 17;39(4):733-43.
21. Gao Y, Nish SA, Jiang R, Hou L, Licona-Limón P, **Weinstein JS**, Zhao H, Medzhitov R. Control of T helper 2 responses by transcription factor IRF4-dependent dendritic cells. *Immunity*. 2013 Oct 17;39(4):722-32.
22. **Weinstein JS**, Bertino SA, Hernandez SG, Poholek AC, Teplitzky TB, Nowyhed HN, Craft J. B cell provision of ICOSL is not required for T follicular helper cell differentiation under conditions of excess B cell activation. *J Immunol*. 2014 Apr 1;192(7):3166-79.
23. Shulman, Z, Gitlin, AD, **Weinstein, JS**, Lainez, B, Esplugues, E, Flavell, R.A, Craft, J, and Nussenzweig, MC. (2014). Dynamic signaling by T follicular helper cells during germinal center B cell selection. *Science*. 2014 Aug 29;345(6200):1058-62.
24. **Weinstein JS**, Lezon-Geyda K, Maksimova Y, Craft S, Zhang Y, Su M, Schulz VP, Craft J, Gallagher PG. Global transcriptome analysis and enhancer landscape of human primary t follicular helper and t effector lymphocytes. *Blood*. 2014 Dec 11;124(25):3719-29.
25. Xin G, Schauder DM, Lainez B, **Weinstein JS**, Dai Z, Chen Y, Esplugues E, Wen R, Wang D, Parish IA, Zajac AJ, Craft J, Cui W. A Critical role of IL-21-induced BATF in sustaining CD8⁺ T-Cell-mediated chronic viral control. *Cell Rep*. 2015 Nov 10;13(6):1118-24
26. Brodeur TY, Robidoux TE, **Weinstein JS**, Craft J, Swain SL, Marshak-Rothstein A. IL-21 promotes pulmonary fibrosis through the induction of profibrotic CD8⁺ T cells. *J Immunol*. 2015 Dec 1;195(11):5251-60

27. Chan PY, Carrera Silva EA, De Kouchkovsky D, Joannas LD, Hao L, Hu D, Huntsman S, Eng C, Licona-Limón P, **Weinstein JS**, Herbert DR, Craft JE, Flavell RA, Repetto S, Correale J, Burchard EG, Torgerson DG, Ghosh S, Rothlin CV. The TAM family receptor tyrosine kinase TYRO3 is a negative regulator of type 2 immunity. *Science*. 2016 Apr 1;352(6281):99-103
28. **Weinstein JS**, Herman EI, Lainez B, Licona-Limón P, Esplugues E, Flavell R, Craft J Follicular Helper T Cells Progressively Differentiate to Regulate the Germinal Center Response. *Nat Immunol*. 2016 Oct;17(10):1197-1205
29. Bosurgi L, Cao YG, Cabeza-Cabrerizo M, Tucci A, Hughes LD, Kong Y, **Weinstein JS**, Licona-Limon P, Schmid ET, Pelorosso F, Gagliani N, Craft JE, Flavell RA, Ghosh S, Rothlin CV. Macrophage function in tissue repair and remodeling requires IL-4 or IL-13 with apoptotic cells. *Science*. 2017 May 11;10.1126
30. Laidlaw BJ, Lu Y, Amezcua RA, **Weinstein JS**, Vander Heiden JA, Gupta NT, Kleinstein SH, Kaech SM, Craft J. Interleukin-10 from CD4+ follicular regulatory T cells promotes the germinal center response. *Sci Immunol*. 2017 Oct 20; 2(16)
31. **Weinstein JS**, Laidlaw BJ, Lu Y, Wang JK, Schulz VP, Li N, Herman EI, Kaech SM, Gallagher PG, Craft J. The transcriptional regulators STAT4 and T-bet cooperate in follicular helper T cells to fine-tune viral-specific humoral responses. *J. Exp Med*. 2017 Dec 6; 215(1)
32. Xin G, Zander R, Schauder DM, Chen Y, **Weinstein JS**, Drobyski WR, Tarakanova V, Craft J, Cui W. Single-cell RNA sequencing unveils an IL-10-producing helper subset that sustains humoral immunity during persistent infection. *Nat Commun*. 2018 Nov 28;9(1):5037. doi: 10.1038/s41467-018-07492-4.
33. Wang A, Pope SD, **Weinstein JS**, Yu S, Zhang C, Booth CJ, Medzhitov R. Specific sequences of infectious challenge lead to secondary hemophagocytic lymphohistiocytosis-like disease in mice. *Proc Natl Acad Sci U S A*. 2019 Feb 5;116(6):2200-2209. doi: 10.1073/pnas.1820704116. Epub 2019 Jan 23.

Chapters, Books, and Reviews

1. Reeves WH, Lee PY, **Weinstein JS**, Satoh M, Lu L. Trends in Immunology. 2009 Sep;30(9): pp 455-64.
2. **Weinstein JS**, Hernandez SG, Craft J. Immunology Review. 2012 May;247(1):160-71.