

# **Joseph Martin Ready**

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## ***Employment***

- 2003 – 2007 Assistant Professor, UT Southwestern and Southwestern Medical Foundation Endowed Scholar
- 2007 – 2013 Chair, chemistry training track, UT Southwestern
- 2009 – Director, Medicinal Chemistry Laboratory, UT Southwestern
- 2007 – 2012 Associate Professor, UT Southwestern
- 2012 – Professor, UT Southwestern
- 2012 – 2014 Consultant, Peloton Therapeutics
- 2014 – 2016 Consultant, Calico Life Sciences
- 2017 – 2021 Founder, Consultant, Rodeo Therapeutics
- 2017 - Founder, Consultant, Proneurotech Therapeutics
- 2017 – 2021 Bonnie Bell Harding Professor of Biochemistry
- 2019 - Vice Chairman, Department of Biochemistry, UT Southwestern
- 2021 - Consultant, Amgen
- 2021 - Ron Estabrook Distinguished University Chair in Biomedical Sciences

## ***Education:***

- 2001 Ph.D. in Chemistry  
Harvard University, Cambridge, MA
- 1996 B.S. in Chemistry, Highest Honors, Highest Distinction  
University of North Carolina, Chapel Hill, NC

## ***Research Experience:***

- 2001 - 2003 **Postdoctoral Fellow with John L. Wood**  
Yale University, New Haven, CT  
*Studies towards the total synthesis of Welwitindolinone A*
- 1997 - 2001 **Graduate Research with Eric N. Jacobsen**  
Harvard University, Cambridge, MA  
*Development of catalytic asymmetric epoxide ring opening reactions*
- 1995 - 1997 **Research Assistant with Masahiko Negishi**  
National Institute of Environmental Health Sciences  
Research Triangle Park, NC  
*Studies on sex-dependent expression of Cytochrome P450 2D9*

1995 - 1996 **Undergraduate Research with Paul J. Kropp**  
University of North Carolina, Chapel Hill, NC  
*Studies on alumina-mediated reactions*

**Awards and Fellowships:**

- 2017 Top 20 Translational Researcher (*Nat. Biotech.* **2018** (36) 798)  
2009 - 2011 Fellow of the Alfred P. Sloan Foundation  
2008 American Cancer Society Research Scholar  
2007 Amgen Young Investigator Award  
2006 NSF CAREER Award  
2003 Southwestern Medical Foundation Scholar in Biomedical Research
- 2001 - 2003 NIH Postdoctoral Fellow (Yale University, 2001-2003)  
2000 - 2001 Eli Lilly and Company predoctoral fellowship (Harvard University)  
1999 - 2000 American Chemical Society, Organic Division predoctoral fellowship (Harvard University)  
1996 Phi Beta Kappa (University of North Carolina, Chapel Hill)

**Independent Research Publications:**

McGettigan, J. E, Jr.; Ready, Joseph M. Diastereoselective Alkylation of Activated Nitrogen Heterocycles with Alkenyl Boronate Complexes. *Angew. Chem. Int. Ed.*, **2023**, 62, e202216961. NIHMSID: 1875410. PMID: 36780188

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Davis, C.R.; Fu, Y; Liu, P.; Ready, J.M. Mechanistic basis for the Iridium-catalyzed enantioselective allylation of alkenyl boronates. *J. Am. Chem. Soc.* **2022**, 144, 16118-16130. PMID: 36036508 [JACS Editor's Choice selection for 2022]

Hu, B.; Toda, K.; Wang, X.; Antczak, M. I.; Smith, J.; Geboers, S.; Nishikawa, G.; Li, H.; Dawson, D.; Fink, S.; Desai, A. B.; Williams, N. S.; Markowitz, S. D.; Ready, J. M. Orally bioavailable quinoxaline inhibitors of 15-prostaglandin dehydrogenase (15-PGDH) promote tissue repair and regeneration. *J. Med. Chem.* **2022**, 65, 15327-15343. PMID: 36322935. NIHMSID: 1860950. <https://pubs.acs.org/doi/10.1021/acs.jmedchem.2c01299>

Chen, R.; Wang, J.; Gradinaru, I.; Vu, H. S.; Geboers, S.; Naidoo, J.; Ready, J.M.; Williams, N.S.; DeBerardinis, R.J.; Ross, E.M.; Collins, J.J. A male-derived non-ribosomal peptide pheromone

controls female schistosome development. *Cell*, **2022**, *185*, 1506-1520. PMID: 35385687.  
<https://www.sciencedirect.com/science/article/abs/pii/S0092867422003270>.

Jia, Y.; Li, L.; Lin, Y.-H.; Gopal, P.; Shen, S.; Zhou, K.; Yu, X.; Sharma, T.; Zhang, Y.; Siegwart, D. J.; Ready, J. M.; Zhu, H. In vivo CRISPR screening identifies BAZ2 chromatin remodelers as druggable regulators of mammalian liver regeneration. *Cell Stem Cell* **2022**, *29*, 372-385.e8. doi.org/10.1016/j.stem.2022.01.001

Leng, L.; Ready, J.M. Hydroesterification and Difunctionalization of Olefins with N-Hydroxyphthalimide Esters. *ACS Catalysis*, **2021**, *11*, 13714-13720. NIHMSID: 1776656. Featured in *Org. Chem. Highlights*.

White, K.; Esparza, M.; Liang, J.; Bhat, P.; Naidoo, J.; McGovern, B. L.; Williams, M. A. P.; Alabi, B. R.; Shay, J.; Niederstrasser, H.; Posner, B.; García-Sastre, A.; Ready, J.; Fontoura, B. M. A. Aryl sulfonamide inhibits entry and replication of diverse influenza viruses via the hemagglutinin protein. *J. Med. Chem.* **2021**, *64*, 10951-10966.

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Leng, L.; Fu, Y.; Liu, P.; Ready, J. M. Regioselective, Photocatalytic  $\alpha$ -Functionalization of Amines. *J. Am. Chem. Soc.* **2020**, *142*, 11972-11977. PMID: 32573218 DOI: 10.1021/jacs.0c03758.

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Zhang, W.; Ready, J.M.\* A Concise Total Synthesis of Dictyodendrins F, H and I Using Aryl Ynol Ethers as Key Building Blocks. *J. Am. Chem. Soc.* **2016**, *138*, 10,684-10,692. PMID: 27471872

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Chen, J.; Koswatta, P.; DeBergh, J. R.; Fu, P.; Pan, E.; MacMillan, J. B.; Ready, J. M.\* “Structure Elucidation of Nigricanoside A Through Enantioselective Total Synthesis.” *Chem. Sci.* **2015**, *6*, 2932-2937. PMID: 26877863.

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efficacy in mice by increasing hippocampal neurogenesis." *Mol. Psychiatry* **2015**, *20*, 500-8.  
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## ***Issued Patents***

Markowitz, S.; Ho, W. J.; Yuan, Y.; Jain, M.; Sabeh, M.; Ready, J.; Williams, N. Inhibitors of short-chain dehydrogenase activity for treating coronary disorders. 2022, US 11,426,420 B2.

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Schneider, J.; Hsieh, J.; Frantz, D. E.; McKnight, S. L.; Ready, J. M. "Isoxazole amides, derivatives and methods of chemical induction of neurogenesis." 2012, US 8193225

### ***Review Articles***

Lynch, K. W.; Ready, J. M.\* "Science at the interface of chemistry and biology at UT Southwestern" *ACS Chem. Biol.* **2007**, 512-514.

### ***Publications from Postdoctoral Studies:***

Reisman, S. E.; Ready, J. M.; Weiss, M. M.; Hasuoka, A.; Hirata, M.; Tamaki, K.; Ovaska, T. V.; Smith, C. J.; Wood, J. L.\* "Evolution of a Synthetic Strategy: Total Synthesis of Welwitindolinone A Isonitrile." *J. Am. Chem. Soc.* **2008**, 130, 2087-2100.

Reisman, S. E.; Ready, J. M.; Hasuoka, A.; Smith, C. J.; Wood, J. L.\* "Total Synthesis of Welwitindolinone A Isonitrile" *J. Am. Chem. Soc.* **2006**, 128, 1448-1449.

Ready, J. M.; Reisman, S. E.; Hirata, M.; Weiss, M. M.; Tamaki, K.; Ovaska, T.; Wood, J. L.\* "A Mild and Efficient Synthesis of Oxindoles: Application to the Synthesis of Welwitindolinone A Isonitrile." *Angew. Chem. Int. Ed.*, **2004**, 43, 1270-1272.

### ***Publications from Graduate Studies:***

Ready, J. M.; Jacobsen, E. N.\* "A Practical Oligomeric [(salen)Co] Catalyst for Asymmetric Epoxide Ring-Opening Reactions." *Angew. Chem. Int. Ed.*, **2002**, 41, 1374-1377.

Ready, J. M.; Jacobsen, E. N. \* "Highly Active Oligomeric (salen)Co Catalysts for Asymmetric Epoxide Ring Opening Reactions." *J. Am. Chem. Soc.* **2001**, 123, 2687-2688.

Ready, J. M.; Jacobsen, E. N.\* "Asymmetric Catalytic Synthesis of  $\alpha$ -Aryloxy Alcohols: Kinetic Resolution of Terminal Epoxides via Highly Enantioselective Ring Opening with Phenols" *J. Am. Chem. Soc.* **1999**, 121, 6086-6087.

## ***Current Grant support***

Title: Chemical, Structural and Cell-Signaling interrogation of 15-Prostaglandin Dehydrogenase in Tissue Repair and Regeneration

Sponsor: NIH/NIGMS (1RM1GM142002-01)

Name of PD/PI: Joseph Ready

Dates: 06/01/21-03/31/26

Annual direct costs: \$1,150,000 (\$200,000 to Ready lab)

Title: Targeting EWSR1-FLI1 through functional, structural and chemical approaches

Sponsor: NIH-National Cancer Institute (1U54CA231649-01A1)

Name of PD/PI: (Ready, Core PI)

Annual direct costs (Ready lab): \$153,820

Dates: 7/1/2021 – 6/30/2026

Title: Tumor Activated Enzyme Inhibitors for the Treatment of Cancer

Sponsor: CPRIT (RP180457)

Name of PD/PI: Joseph Ready

Dates: 03/01/2018-8/31/2021

Annual direct costs: \$192,540

Title: Optimization of novel phenotypic screening hits for treatment of Malaria

Sponsor: NIH/NIAID

Name of PD/PI: Margaret Phillips (Role: Co-PI)

Dates: 04/01/2021 – 11/30/2025

Annual direct costs (Ready lab): \$175,000

Title: Tumor-targeted inhibitors of stearoyl-CoA desaturase for the treatment of cancer

Sponsor: NIH- National Cancer Institute (1R01CA21733301A1)

Name of PD/PI: Nijhawan (Role: Co-PI)

Dates: 3/7/2018-2/28/2023

Annual direct costs (Ready lab): \$142,000

Title: Controlling the selectivity of radical reactions

Sponsor: Welch Foundation (I-1612)

Name of PD/PI: Joseph Ready

Dates: 6/01/2020-5/31/2023

Annual direct costs: \$80,000

Title: Novel BDK Inhibitors to Treat Cardiometabolic Diseases

Sponsor: UCLA-DoD (1520 G YA462)

Name of PD/PI: Y Wang (Role: collaborator)

Dates: 09/01/20-08/31/23

Annual direct costs (Ready lab): \$55,000

Title: Targeting a New Therapy for Trypanosomatids.

Sponsor: NIH-NIAID (R01AI146349)

Name of PD/PI: Wetzel (Role: collaborator)

Dates: 6/12/19 - 5/31/24

Annual direct costs (Ready lab): \$85,000

Title: CASE GI Spore

Sponsor: Case Western University-NIH-NCI (2P50CA150964-6A1)

Name of PD/PI: Markowitz (Role: subcontract PI)

Dates: 8/1/2018-7/31/2022

Annual direct costs (Ready lab): \$35,000

### ***Completed Support within 5 Years***

Title: Chemical Inhibitors of 15-prostaglandin dehydrogenase potentiate hematopoietic stem cell transplantation

Sponsor: NIH-National Cancer Institute (5R01CA216863-02)

Name of PD/PI: MultiPI: Ready, Markowitz, Gerson

Dates: 3/10/2017-2/28/2022 (NCE)

Total direct costs: \$1,175,436 total (\$579,000 to Ready lab)

Title: New directions in asymmetric catalysis

Sponsor: Welch Foundation (I-1612)

Name of PD/PI: Ready

Dates: 07/01/2017 – 06/30/2020

Title: Enantioselective Atom Transfer Radical Additions

Sponsor: American Chemical Society/Petroleum Research Fund

Name of PD/PI: Ready

Dates: 09/01/2017 – 08/01/2020

Title: Therapeutics Targeting Filoviral interferon-antagonist and replication functions

Sponsor: NIH-NIAID (U19 AI10966403)

Name of PD/PI: Bassler (Role: subcontract PI)

Dates: 03/01/2014 – 02/01/2019

Title: Synthesis and Evaluation of Biologically Active Natural Products

Sponsor: NIH-NIGMS (R01-GM102403)

Name of PD/PI: Ready

Dates: 06/01/2013 – 05/31/2017

Title: Natural Products for the Treatment of Non-small Cell Lung Cancer

Sponsor: CPRIT (RP140152)

Name of PD/PI: MacMillan (Role: co-PI)

Dates: 08/01/2014 -07/01/2017

Title: Chemical Optimization of Small Molecules Targeting Non-small Cell Lung Cancer

Sponsor: CPRIT (RP110708)

Name of PD/PI: McKnight (Role: Project PI)

Dates: 04/01/2011 – 11/30/2016