

# Chad J. Pickens

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**PROFESSIONAL SUMMARY** **Pharmaceutical chemist** with experience in formulation development and organic synthesis, including two years of experience in cGMP analytical and manufacturing environments and two years of management experience. Hands-on experience with analytical method validation, formulating and testing several dosage forms, equipment qualification and calibration, and numerous manufacturing processes. Working knowledge of FDA, USP, and ICH regulations and guidelines, and other pharmaceutical quality systems.

**EXPERIENCE** **Senior Scientist, Analytical Enabling Technologies** Aug 2017 - Current  
*Merck Research Laboratories, Rahway, NJ*  
Provide analytical support for discovery chemistry project teams, in addition to oversight for a network of open access analytical instrumentation

**Graduate Research Assistant** Aug 2013 - Jun 2017  
*University of Kansas (Dr. Cory Berkland), Lawrence, KS*  
NIH dynamic aspects of chemical biology trainee and Howard Rytting pre-doctoral fellow, studying the synthesis and characterization of novel therapeutic molecules for treating autoimmune disorders

**Associate Specialist** Jun 2016 - Aug 2016  
*Merck Research Laboratories, Rahway, NJ*  
Completed a 12-week internship on the analysis of peptide degradation products via orthogonal chromatographic methods, utilizing both comprehensive and multiple heart cutting two-dimensional ultra-high pressure liquid chromatography

**Manager, Research and Development** Feb 2011 - Aug 2013  
*Agere Pharmaceuticals Inc., Bend, OR*  
Contributed to 7 clinical-stage drug product development programs, including numerous other preclinical projects focused on bioavailability enhancement, and managed projects totaling over \$3 million in revenue

**Scientist II** Sep 2009 - Nov 2010  
*Molecular Probes/Life Technologies, Eugene, OR*  
First synthesized components used in two commercial products, work leading to one publication and two patents

**Research Technician** Jun 2007 - Sep 2009  
*University of Oregon (Dr. John F.W. Keana), Eugene, OR*  
Developed a novel hypoxia-activated protecting group to eradicate oxygen deficient regions of tumors, which are resistant to chemotherapy

EDUCATION	<b>Doctor of Philosophy, Pharmaceutical Chemistry (honors)</b> <i>University of Kansas, Lawrence, KS</i> Advisor: Dr. Cory Berkland	Aug 2013 – Jun 2017
	<b>Master of Science, Pharmaceutical Chemistry</b> <i>University of Kansas, Lawrence, KS</i> Advisor: Dr. Cory Berkland	Aug 2013 - Jun 2015
	<b>Master of Science, Chemistry</b> <i>University of Oregon, Eugene, OR</i> Emphasis in Advanced Organic Synthesis & Organometallics	Jun 2009 - Jun 2010
	<b>Bachelor of Science, Biochemistry</b> <i>University of Oregon, Eugene, OR</i>	Sep 2005 - Jun 2009

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| DISTINCTIONS | <ul style="list-style-type: none"> <li>• NIH Dynamic Aspects of Chemical Biology Grant Trainee, University of Kansas</li> <li>• Howard Rytting Pre-doctoral Fellowship, University of Kansas</li> <li>• AAPS Chapter President, University of Kansas</li> <li>• President, Graduate Student Organization, University of Kansas</li> <li>• 2009 Organic Chemistry Achievement Award, University of Oregon</li> <li>• University of Oregon Centurion Award (2008)</li> <li>• Dean's Scholarship, University of Oregon</li> </ul> |
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| PUBLICATIONS | <ol style="list-style-type: none"> <li>1) <b>Antigen-drug conjugates as a novel therapeutic class for the treatment of antigen-specific autoimmune disorders</b><br/><u>Chad J. Pickens*</u>, Matthew A. Christopher*, Martin A. Leon, Bradley P. Sullivan, Cory J. Berkland<br/><i>(Manuscript in Preparation)</i></li> <li>2) <b>Polymer-supported dexamethasone as a pH-sensitive viscoelastic device to protect corneal endothelium integrity during cataract surgery</b><br/><u>Chad J. Pickens</u>, Martin A. Leon, Cory J. Berkland<br/><i>(Manuscript in Preparation)</i></li> <li>3) <b>Co-delivery of autoantigen and dexamethasone in incomplete Freund's adjuvant ameliorates experimental autoimmune encephalomyelitis</b><br/>Laura Northrup, J. Daniel Griffin, Matthew A. Christopher, Lorena R. Antunez, Brittany Hartwell, <u>Chad J. Pickens</u>, Cory Berkland<br/><i>Journal of Controlled Release (Manuscript Submitted)</i></li> <li>4) <b>Multivalent soluble antigen arrays dampen antigen-specific costimulatory signaling and induce an anergic phenotype in antigen presenting B cells to promote therapeutic efficacy in experimental autoimmune encephalomyelitis</b><br/>Brittany L. Hartwell, <u>Chad J. Pickens</u>, Martin A. Leon, Laura Northrup, J. Daniel Griffin, Matthew Christopher, Cory J. Berkland<br/><i>Nature Immunology (Manuscript in Preparation)</i></li> </ol> |
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**5) Multivalent antigen arrays exhibit high avidity binding and modulation of B cell receptor-mediated signaling to drive efficacy against experimental autoimmune encephalomyelitis**

Brittany L. Hartwell\*, Chad J. Pickens\*, Martin A. Leon, Cory J. Berkland  
*ACS Biomacromolecules (Manuscript Submitted)*

**6) Development and characterization of FLT3-specific curcumin loaded micelles as a drug delivery system for treating FLT3-overexpressing leukemic cells**

Singkome Tima, Siriporn Okonogi, Chadarat Ampasavate, Chad Pickens, Cory Berkland, Songyot Anuchapreeda  
*Journal of Pharmaceutical Sciences (2016)*, 105, 3645-3657.

**7) Photolabile thymidine phosphoramidite cleavable with a 532nm laser**

Chad J. Pickens, Kyle R. Gee  
*Tetrahedron Letters (2011)*, 52(39), 4989-4991.

PATENTS AND  
PATENT  
APPLICATIONS

**1) Ready to use ketorolac formulations**

Joseph V. Pergolizzi, Alexander Mironov, Chad James Pickens, Douglas Giles Johnson  
*United States Patent Application 15/211,560 (July 15, 2016)*

**2) Protein modification from the oxidation of clickable polyunsaturated fatty acid analogs**

Brian Agnew, Chad Pickens, Upinder Singh  
*United States Patent Application 13/515,561 (Filed June 13, 2012)*

**3) Ready to use ketorolac formulations**

Joseph V. Pergolizzi, Alexander Mironov, Chad James Pickens, Douglas Giles Johnson  
*International Patent WO2012054831 (PCT/US2011/057284 Filed October 21, 2011)*  
*Canadian Patent CA2814805*  
*European Patent EP2616064*  
*Chinese Patent CN103167800*

**4) Ready to use ketorolac formulations**

Joseph V. Pergolizzi, Alexander Mironov, Chad James Pickens, Douglas Giles Johnson  
*United States Patent 9,421,191 (Application 13/278,703 Filed October 21, 2011)*

**5) Protein modification from the oxidation of clickable polyunsaturated fatty acid analogs**

Brian Agnew, Chad Pickens, Upinder Singh  
*International Patent WO2011079188 (PCT/US2010/061768 Filed December 22, 2010)*  
*European Patent EP2516386*

PRESENTATIONS

**1) Education and Training of the Future Pharmaceutical Sciences Workforce**

Pharmaceutical Sciences World Congress, Stockholm, Sweden  
*May 23, 2017 (invitation received and accepted)*

**2) Novel antigen-specific immunotherapies for the treatment of autoimmune disease**

NIH Dynamic Aspects of Chemical Biology Symposium, Lawrence, KS  
*November 19, 2015*

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\* Authors contributed equally

POSTERS

**1) Novel antigen-specific immunotherapies for the treatment of autoimmune disorders**

Chad Pickens, Brittany Hartwell, Martin Leon, Matthew Christopher, Cory Berkland  
*Globalization of Pharmaceuticals Education Network Conference (November 2016)*

**2) Novel antigen-specific immunotherapies for the treatment of autoimmune disorders**

Chad Pickens, Sharadvi Thati, Bradley Sullivan, Martin Leon, Cory Berkland  
*Ron Borhardt Tribute Symposium (November 2015)*  
*NIH Dynamic Aspects of Chemical Biology Annual Symposium (November 2014)*

**3) Antigen-fluorophore conjugates as a diagnostic tool for antigen tracking**

Chad Pickens, Bradley Sullivan, Brittany Hartwell, Cory Berkland  
*University of Kansas Pharmaceutical Chemistry Department Retreat (October 2014)*  
*NIH Dynamic Aspects of Chemical Biology Annual Symposium (November 2014)*

**4) Evaluating the performance of tablets manufactured with spray-dried polyvinyl acetate phthalate (PVAP) as a solid dispersion polymer**

S. Konagurthu, A. Freauff, B. House, M. Kerkmann, A. McVey, J. Wilmoth, Z. Mahmoudi, C. Cunningham, A. Rajabi-Siahboomi, C. Pickens  
*American Association of Pharmaceutical Scientists Conference (November 2013)*

**5) Polyvinyl acetate phthalate (PVAP) as a solid dispersion polymer for improving bioavailability of poorly soluble compounds**

S. Konagurthu, R. Minikis, A. Freauff, M. Kerkmann, A. McVey, J. Wilmoth, C. Pickens  
*American Association of Pharmaceutical Scientists Conference (November 2013)*

**6) Oxidative stress-induced protein modifications: Application of clickable linoleic acid analogs**

Robert Aggeler, Peter Slade, Tamara Nyberg, Chad Pickens, Upinder Singh, Brian Agnew  
*Life Technologies S&T Symposium (September 2010)*

**7) Copper-safe click chemistry reagents and their biological applications**

Upinder Singh, Chad Pickens, Jerry Thomas, Vladimir Martin, Kyle Gee  
*Life Technologies S&T Symposium (September 2010)*

SESSION  
MODERATOR

**1) Short Course: Lymphatic Drug Delivery Systems & Modulating Immune Response**

Globalization of Pharmaceuticals Education Network Conference  
*Lawrence, KS (November 12, 2016)*