

# CURRICULUM VITAE

**NAME** CRAIG MARTIN CREWS

**BORN** June 1, 1964, Newport News, Virginia

**WEBSITE:** crewslab.yale.edu

## EDUCATION AND WORK EXPERIENCE

- 1982-1986 **B.A., Chemistry**, University of Virginia  
1986-1987 **DAAD Fellow**, Universität Tübingen, Germany  
1987-1993 **Ph.D., Biochemistry**, Dept of Biochemistry & Mol. Biology, Harvard University  
(*thesis project: Purification/cloning of MEK1*)  
1993-1995 **Postdoctoral Fellow**, Dept. of Chemistry, Harvard, with Dr. Stuart Schreiber  
1995-2000 **Assistant Professor**, Yale University, Dept of Mol., Cell & Dev. Biology  
1998-2000 **Assistant Professor**, Yale School of Medicine, Dept of Pharmacology  
2000-2007 **Associate Professor**, Yale School of Medicine, Dept of Pharmacology  
2000-2007 **Associate Professor**, Yale University, Dept of Molecular, Cellular & Developmental  
Biology (*tenured in 2001*)  
2001-2007 **Associate Professor**, Yale University, Dept of Chemistry  
2003 **Co-Founder**, Proteolix, Inc. (*sold to Onyx Pharmaceuticals, 2009*)  
2003- **Executive Director**, Yale Center for Molecular Discovery  
2007- **Professor**, Yale University, Depts. of MCDB, Chemistry, Pharmacology  
2008- 2018 **Editor**, *Cell Chemical Biology* (formerly *Chemistry & Biology*)  
2010-2019 **Lewis B. Cullman Professor** of MCDB  
2010-2013 **Visiting Professor (Gast Professor)**, Universität Konstanz, Germany  
2013 **Founder**, Arvinas, Inc (oncology-focused biotech) (*ARVN IPO 9/27/18*)  
2015-2019 **Director**, Program for Innovative Therapeutics for CT's Health (PITCH)  
-(CT-based biotech accelerator)  
2016-2019 **Member**, CTNext Board of Directors  
2019- **John C. Malone Professor** of MCDB  
2013 **Founder**, Halda, LLC (oncology-focused biotech)  
2021 **Founder**, Siduma, LLC (biotech)

## HONORS AND AWARDS

- 1996-1999 **Burroughs Wellcome Fund New Investigator Award**  
1996-1999 **Donaghue Foundation New Investigator Award**  
1996-1998 **CaPCURE Award** (Assoc. for the Cure of Cancer of the Prostate)  
2005- **Fellow of the Royal Society of Chemistry**  
2005 **Friedrich Wilhelm Bessel Award**, Alexander von Humboldt Foundation  
2011 **Senior Scholar Award**, Ellison Medical Foundation  
2013 **Fellow**, American Association for the Advancement of Science (AAAS)  
2013 **Entrepreneur of the Year**, Connecticut United for Research Excellence (CURE)  
2014 **UCB-Ehrlich Award for Excellence in Medicinal Chemistry** (European Federation of  
Medicinal Chemistry)  
2015 **Outstanding Investigator Award (R35)**, National Cancer Institute (NIH)  
2015 **Translational Research Prize**, Yale Cancer Center

- 2017 **Award for Outstanding Achievement in Chemistry in Cancer Research**, American Association for Cancer Research (AACR)
- 2018 **Khorana Prize**, Royal Society of Chemistry
- 2018 **Pierre Fabre Award for Therapeutic Innovation**
- 2019 **American Cancer Society Professorship**
- 2019 **Pharmacia-ASPET Award for Experimental Therapeutics**
- 2019-2020 **John C. Malone Professor** of Molecular, Cellular, & Developmental Biology
- 2020 **Heinrich Wieland Prize**, Boehringer Ingelheim Foundation
- 2021 **Scheele Prize**, Swedish Pharmaceutical Society
- 2021 **Honorary Doctorate** (Dr. h. c.), Technische Universität Dortmund, Germany
- 2022 **Medal of Technology**, Connecticut Academy of Science and Engineering

### **TEACHING EXPERIENCE**

- 1995-2011 Lecturer (and Course Director, 1997) in **Cell Biology (MCDB205b)**
- 2000-present Course Director in Advanced Seminar in **Cell Biology (MCDB482a)**
- 1996-present Lecturer in **Pharmacology II: Interfering Selectively (Pharm 504b)**
- 1997-2013 Lecturer in **Current Topics in Cancer and Viral Therapies (Pharm 518b)**
- 1997- 2008 Lecturer in **Perspectives on Science (SCIE150)**
- 2003-2010 Lecturer in **First-Year Introduction to Research (MCDB 900)**
- 2004-2015 Lecturer in **Cell Biology (MCDB 602/603)**
- 2007-2014 Lecturer in **Rain Forest Expedition and Laboratory (MB&B 230b)**
- 2010-2012 Lecturer in **Principles in Signal Transduction (Pharm528b)**
- 2015-present Course Director and Lecturer in **Biotechnology (MCDB370)**
- 2017 Course Co-Director in **The Life Science Industry (SOM663)**

### **CONSULTANCIES**

- 1997- 2000 Pfizer Corporation (DrugFinder Program)
- 1998- 2002 Novartis Pharmaceutical Corporation
- 1998- 2002 Ancile Pharmaceuticals
- 2000- 2002 Osteoscreen
- 2001- 2002 Boehringer-Ingelheim
- 2001- 2003 Morphochem
- 2000 ChemGenomics, Inc.
- 2001- 2009 Proteolix, Inc. (*Co-founder, SAB Member*)
- 2008 Zafgen, Inc.
- 2009- 2012 Onyx Pharmaceuticals, Inc.
- 2010 Astex Therapeutics
- 2012 Ono Pharma, Inc.
- 2013- 2021 Arvinas, Inc. (*Founder, Chief Scientific Advisor, SAB Chair*)
- 2014 Canaan Partners
- 2016- 2019 Amgen
- 2019- Halda, LLC (*Founder, Chief Scientific Advisor, SAB Chair*)
- 2020- Siduma, LLC (*Founder, Chief Scientific Advisor, SAB Chair*)

### **PROFESSIONAL PERSONNEL TRAINED**

Graduate Students (29)  
 Postdoctoral Associates Trained (73)

## **PATENTS (18) /PATENT APPLICATIONS (31)**

### **NEW VENTURES FOUNDED**

2001 **Co-Founder**, Proteolix, Inc. (*sold to Onyx Pharmaceuticals, 2009*)

2013 **Founder**, Arvinas, Inc. (<http://arvinas.com/>)

2018 **Founder**, Halda Therapeutics, LLC

2021 **Founder**, Siduma Therapeutic, LLC

### **FDA APPROVED DRUGS**

Carfilzomib/Kyprolis™ (July 2012) (<http://en.wikipedia.org/wiki/Carfilzomib>)

## **ARVINAS DRUG CANDIDATES CURRENTLY IN CLINICAL TRIALS**

### **PHASE 1**

**ARV-766** (Androgen Receptor Degrading PROTAC)

### **PHASE 2**

**ARV-110** (Androgen Receptor Degrading PROTAC)

**ARV-471** (Estrogen Receptor Degrading PROTAC)

## **INVITED LECTURES**

### **1994**

- Gordon Conference on “Marine Natural Products”, Ventura, CA, (February, 1994)

### **1995**

- Pharma Mar, s.a., Madrid, Spain (July 1995)
- Yale University, Pharmacology Department (December 1995)

### **1996**

- Pharmacopeia, Inc. (April 1996)
- Gordon Conference on "Natural Products", Henniker, New Hampshire, (July 1996)
- University of Connecticut, Department of Medicinal Chemistry, (November 1996)

### **1997**

- Curagen Corporation (February 1997)
- NCI US-Japan Joint Seminar on Exp. Antitumor Therapeutics, Maui, Hawaii (March 1997)
- Bayer Corporation (April 1997)
- Neurogen Corporation (April 1997)
- Abbott Laboratories (June 1997)
- Pfizer Pharmaceuticals (July 1997)
- Vertex Pharmaceuticals (July 1997)

- CaPCURE Scientific Retreat, Lake Tahoe, (September 1997)
- IBC Conference on Combi. Chem., *Session Chairman*, San Diego (October 1997)
- Novartis Pharmaceuticals, (October 1997)
- IBC Conference on Proteomics, Boston (November 1997)
- University of Texas at Southwestern, Dallas, Biochemistry Dept. (December 1997)

## 1998

- Yale University, Pharmacology Department (February 1998)
- U.S. Surgical Corporation (March 1998)
- National Cancer Institute, Frederick, MD (March 1998)
- American Chemical Society National Meeting (Med. Chem. Section), Dallas (April 1998)
- Yale Chemical Biology Symposium (April 1998)
- Yale Cancer Center Grand Rounds (May 1998)
- Gordon Conference on 'Natural Products', Henniker, New Hampshire (July 1998)
- CaPCURE Scientific Retreat, Lake Tahoe (September 1998)
- ProScript, Inc., Cambridge (October 1998)
- PharmaMar, s.a., Cambridge, MA (October 1998)

## 1999

- Novartis Pharmaceuticals, Summit, New Jersey (February 1999)
- 3<sup>rd</sup> Workshop on the Proteasome, Universite de Clermont-Ferrand, France (March 1999)
- University of Texas at Southwestern, Dallas, Biochemistry Department (May 1999)
- Gordon Conference on Bioorganic Chemistry, Andover, New Hampshire, (June 1999)
- FASEB Meeting on Ubiquitin, Saxtons River, Vermont, (August 1999)
- Sphinx Pharmaceuticals, Cambridge, MA (September 1999)
- Swedish Pharmaceutical Society Conference on Med. Chem., Stockholm, (October 1999)
- Karolinska Institute, Microbiology and Tumor Biology Center, Stockholm, (October 1999)
- Biomedical Center, Uppsala, (October 1999)
- University of Umeå, Department of Biochemistry, Umeå, Sweden (October 1999)
- Syracuse University, Department of Biology, Syracuse (October 1999)
- Chiron Corporation, Emeryville, California (October 1999)
- UCSF, Cellular and Molecular Pharmacology (October 1999)
- University of Rochester, Department of Chemistry (November 1999)
- Hunter College, CUNY, Department of Biology (November 1999)

## 2000

- University of Texas Health Science Center, San Antonio, TX (January 2000)
- MRC, Laboratory of Molecular Biology, Cambridge, UK (January 2000)
- Kings College London, UK (January 2000)
- Notre Dame University, Walther Cancer Research Center (February 2000)
- American Chemical Society National Meeting, San Francisco (March 2000)
- University of Delaware, Department of Chemistry (March 2000)
- Bristol-Myers Squibb, (April 2000)
- Yale University, Yale Science Forum (April 2000)
- Genentech, South San Francisco, CA (May 2000)
- Tularik, South San Francisco, CA (May 2000)
- Boehringer Ingelheim, Ridgefield, CT (June 2000)
- Pharmacia/UpJohn, St.Louis, MO (August 2000)

- Wesleyan University, Chemistry/Biochemistry Seminar Series (November 2000)
- Duke University, Biochemistry Department (November 2000)
- University of Pennsylvania, Chemistry Department (November 2000)
- American Chemical Society PacifiChem2000 Meeting, Honolulu (December 2000)

## 2001

- California Institute of Technology, Division of Biochemistry (January 2001)
- University of Mass. Medical Center, Biochem. & Mol. Pharm. (February 2001)
- New York Medical College, Biochemistry Department (February 2001)
- Chemical Genomics Symp., Korean Chem. Society Meeting, Seoul (April 2001)
- Chemical Genomics Minisymposium, Pohang University, Republic of Korea (April)
- Kyoto Pharmaceutical University, Dept. of Med. Chem (April 2001)
- Science University of Tokyo, Faculty of Pharmaceutical Sciences (April 2001)
- Sankyo Corporation, Tokyo (April 2001)
- EntreMed, Inc., Rockville, MD (May 2001)
- Gordon Conference on Exp. Chemotherapy, Session Chairman, (July 2001)
- Chemical Biology Mini-symposium, Hong Kong University, (July 2001)
- American Chemical Society National Meeting, Chicago (August 2001)
- British Assoc. for Cancer Research Conference '*Forging an Alliance between Genomics, Proteomics and Chemical Biology to Accelerate Cancer Drug Discovery*' London (Sept 2001)
- MorphoChem, Inc. (November 2001)
- National Research Council of Canada, Steacie Institute for Molecular Sciences, Chemical Biology Program, (November 2001)
- American Society for Cell Biology Annual Meeting, Co-Chair of Minisymposium on *Chemical Approaches to Cell Biology*, Washington, D.C. (December 2001)

## 2002

- The Association for Research in Otolaryngology Midwinter Meeting, *Signal Transduction for the 21st Century* Symposium, St. Petersburg, Florida (Jan. 2002)
- University of Illinois, Department of Chemistry, (April 2002)
- The Vanderbilt Conferences, *Proteomics: The Next Grand Biological Challenge*, Nashville, Tennessee (May 2002)
- New York Academy of Sciences, Chemical Genetics Symposium, New York, (October)
- New York University, Chemistry Department, New York City (December 2002)

## 2003

- Massachusetts Institute of Technology, Chemistry Department (February 2003)
- Japan Society for Bioscience, Biotechnology and Agrochemistry, Chemistry and Biology Symposium, Plenary Lecture, Fujisawa City (March 2003)
- American Society for Biochemistry and Molecular Biology, National Meeting; Symp. on Protein Synthesis and Degradation, San Diego, California (April 2003)
- University of Kentucky, Depts of Pharmacology and Chemistry (May 2003)
- Cornell University, Guest Lecturer in Chemical Biology Course (July 2003)
- American Assoc. For Cancer Research, Chemgenomics Symposium (Session Organizer), Washington, D.C. (July 2003)
- IUPAC/CSC, Symposium on Organic Synthesis and Chemical Biology, Ottawa, (August 2003)
- Korea Institute of Science and Technology (KIST), Chemical Genomics Symposium, Seoul, (August 2003)
- IBC Chemical Genomics Symposium, Boston (October 2003)

- Massachusetts General Hospital, Cardiovascular Research Center, (October 2003)
- National Cancer Institute, NIH, Molecular Targets for Cancer Drug Discovery Workshop, (October 2003)
- U. Pennsylvania, Symposium on 'Inhibitors of Protein-Protein Interactions', Depts. of Biochem.& Biophysics and the Department of Chemistry, (Nov. 2003)
- Merck-Frosst Canada, Ltd., Montreal (November 2003)
- Yale University, Vascular Biology and Transplantation Program Retreat, (December)
- American Society of Cell Biology (ASCB) Annual Meeting, Chemistry/Biology Interface Mini-symposium, San Francisco (December 2003)

## 2004

- NIH Chemical Genomics Conference, Bethesda (March 2004)
- Emory University, Departments of Pharmacology and Chemistry, (March 2004)
- Memorial Sloan Kettering Cancer Center, Molecular Pharmacology and Chemistry Seminar Series, (May 2004)
- EMBL, "Chemical Approaches to the Study of Biology" Symposium, Heidelberg (June)
- Institut de Chimie des Substances Naturelles 9<sup>th</sup> Symposium 'Cancer: Targets, Molecules, and Therapies', Gif-sur-Yvette, France (June 2004)
  - Plenary Lecture
- University of Chicago, Dept of Molecular Genetics and Cell Biology (Nov. 2004)
- Society of Industrial Microbiology GMBIM/BMP Conference, San Diego (November)
- German ChemBioNet Symposium, Frankfurt (December 2004)

## 2005

- Princeton University, Chemistry Department, (February 2005)
- U. Illinois at Chicago, Chemistry Department, (February 2005)
- Vertex Pharmaceuticals, Cambridge, MA (April 2005)
- Ernst Schering Research Foundation Workshop, 'Chemical Genomics: Small Molecule Probes to Study Cellular Function', Berlin, (April 2005)
- Institut Pasteur, Department of Structural Biology and Chemistry, Paris (April 2005)
- Roswell Cancer Center, Buffalo, NY (May 2005)
- Case Western Reserve University, Cleveland (May 2005)
- Tissue Repair and Regeneration Gordon Conf., Colby-Sawyer, NH (June 2005)
- European Life Sciences Organization (ELSO) Meeting, Mini-Symposium on Chemical Biology, Dresden (September 2005)
- Max Planck Institute of Molecular Cell Biology and Genetics, Dresden (Sept. 2005)
- New York Academy of Sciences Symposium on Regenerative Medicine, (September)
- U. Illinois, Chemical Biology Seminar Series, Urbana-Champaign, (October 2005)
- Gilead Pharmaceuticals, Foster City, CA (November 2005)
- UCSF, Chemistry and Chemical Biology Program, San Francisco (November 2005)
- Johnson&Johnson Pharmaceuticals, Cranbury, NJ (November 2005)
- Max Planck Institute of Medical Research, Heidelberg, Germany (December 2005)
- Novartis, Cambridge, MA (December 2005)

## 2006

- NIH, Chemistry Seminar Series, Bethesda, MD (January 2006)
- American Chemical Society National Meeting, Atlanta (March 2006)
- Humboldt University, Chemistry, Berlin, Germany (April 2006)
- Leibniz Institute for Molecular Pharmacology, Berlin, Germany (April 2006)

- Max Planck Institute of Molecular Physiology, Dortmund, Germany (May 2006)
- Max Planck Institute of Medical Research, Heidelberg, Germany (May 2006)
- European Symposium on Bioorganic Chemistry, Wales, UK (May 2006) ○  
*plenary lecture*
- Ohio State University Chemistry/Biology Interface Symposium, Columbus (May)
  - *plenary lecture*
- University of Virginia, Chemistry Department, Charlottesville, VA (Sept 2006)
- Eur. Conf. on Cell and Mol. Basis of Regeneration, Ascona, Switzerland (September)
- Yale School of Medicine, Department of Dermatology (September 2006)
- GlaxoSmithKline, Research Triangle Park, NC (October 2006)
- Duke University, Chemistry Department, Durham, NC (October 2006)
- Vanderbilt University, Chemical Biology Seminar Series, Nashville, TN (Oct 2006)

## 2007

- American Society of Biochemistry and Molecular Biology (ASBMB) National Meeting, Washington, DC (April 2007)
- Am. Assoc. for Cancer Research (AACR) National Meeting, Los Angeles (April 2007)
- Tissue Repair and Regeneration Gordon Conf., Colby-Sawyer, NH (June 2007)
- Biotechnology and Biological Sciences Research Council Chemical Biology Workshop, Manchester, UK (September 2007)
  - *Keynote Lecture*
- GlaxoSmithKline, Research Triangle Park, NC (October 2007)
- Northwestern, Chemistry Department, Evanston, IL (November 2007)

## 2008

- Merck Serono KGaA, Darmstadt, Germany (March 2008)
- Genomes to Systems Conference 2008, Consortium for Post Genome Sciences, Manchester, UK (March 2008)
- ISN Forefronts Symposium on Polycystic Kidney Disease, Montreal, Canada (April)
- Amgen, Cambridge (May 2008)
- Universität Konstanz, Konstanz, Germany, (May 2008)
- 2008 Naito Chemical Biology Conference, Naito, Japan (September 2008)
- Innovative Molecular Analysis Technologies Symposium, Cambridge, MA (October)
- Astex Therapeutics, Cambridge, UK (November 2008)
- International Chemical Biology Symposium, Berlin, Germany (November 2008)
- Max Planck Institute for Biochemistry, Martinsried, Germany (November 2008)

## 2009

- Novartis, Cambridge, MA (January 2009)
- 10<sup>th</sup> International Dahlem Symposium on Signal Recognition and Transduction, Berlin, Germany (February 2009)
- Max Planck Institute for Biochemistry for Molecular Genetics, Berlin (February 2009)
- Symposium on “Natural Product Research”, Freiburg, Germany (April 2009)
- John Innes Centre, Norwich, UK (June 2009)
- Medical Research Center, Mill Hill, London UK (June 2009)
- SUNY Buffalo, Chemical Biology Symposium, Buffalo, NY (Sept 2009)
- U. Montreal (September 2009)
- Pfizer 2009 Worldwide Medicinal Chemistry Symposium, Boston (October 2009)
  - *Plenary speaker*

- Merck Serono KGaA, Darmstadt, Germany (October 2009)
- Bayer Symposium on Science and Innovation, Leverkusen, Germany (Oct 2009)
- Ludwig-Maximilians-Universität München, Germany (October 2009)
- Innovative Molecular Analysis Technologies Symposium, Bethesda, MD (October)
- Novartis Pharmaceuticals, Basel, Switzerland (December 2009)

## 2010

- Planar Cell Polarity Symposium, Elba, Italy (May 2010)
- Chemical Biology Symposium, Vanderbilt University (August 2010)
  - *Plenary speaker*
- Chemical Insights into Biological Problems Symposium, NCI, NIH (August 2010)
- Universität Konstanz, Germany (September 2010)
  - Inaugural lecture as GastProfessor
- Leibniz Institute for Molecular Pharmacology, Berlin, Germany (September 2010)
- EMBO Chemical Biology Symposium, Heidelberg, Germany (September 2010)
- Innovative Molecular Analysis Technologies Symposium, San Francisco (October)

## 2011

- University of Umeå, Department of Chemistry, Umeå, Sweden (April 2011)
- Karolinska Institute, Stockholm, Sweden (April 2011)
- 2011 American Transplant Congress, Philadelphia (May 2011)
- European Institute of Chemistry and Biology Symposium, “Rethinking Targets for Therapeutic Intervention,” Bordeaux, France (June 2011)
  - *Keynote speaker*
- Universität Konstanz, Chemical Biology Seminar Series, Germany (June 2011)
- University of Pennsylvania, Chemistry-Biology Interface Retreat (July 2011) ○ *Keynote speaker*
- American Society of Pharmacognosy 2011 Meeting, San Diego, (July 2011)
  - *Plenary speaker*
- Promega Corporation, Madison, WI (September 2011)
- University of Connecticut, Neuroscience Program (September 2011)
- University of Wisconsin Science Day Symposium (November 2011)
- Purdue University, Dept. of Med. Chem and Mol. Pharmacology (December 2011)

## 2012

- University of Cambridge, Cambridge, UK, Department of Chemistry (Jan 2012)
- University College London, UK (January 2012)
- GlaxoSmithKline, Inc., Stevenage, UK (January 2012)
- Colorado State University, Department of Chemistry, (March 2012)
  - *Pfizer Distinguisher Lecturer*
- Yale Comprehensive Cancer Center, Grand Rounds, (March 2012)
- Bioorganic Chemistry Gordon Research Conference, (June 2012)
- American Chemical Society National Meeting, Philadelphia, (August 2012)
- GlaxoSmithKline, Inc., Upper Providence, PA (August 2012)
- GlaxoSmithKline, Inc., Waltham, MA (August 2012)
- XXII<sup>nd</sup> International Symposium on Medicinal Chemistry, Berlin, (Sept 2012)
  - *Keynote Speaker*
- The Scripps Research Institute, Chemical Physiology Dept, La Jolla (Sept 2012)



- The Sanford-Burnham Medical Research Institute, La Jolla (September 2012)
- University of Oxford, Oxford, UK, Chemistry Department (September 2012)
- University of Connecticut, Drug Development Seminar Series (November 2012)

## 2013

- Bristol Myers Squibb, Wallingford, CT (February)
- Bristol Myers Squibb, Lawrenceville, NJ (March)
- Northeastern University, Boston, MA (April)
- Celgene, San Diego, CA (July)
- American Society of Pharmacognosy, St. Louis (July)
- Northeastern Regional Meeting of the American Chemical Society (October)
- GlaxoSmithKline, Inc., Stevenage, UK (December)
- University of Konstanz, Germany (December)

## 2014

- Bristol Myers Squibb, Wallingford, CT (February)
- Millenium/Takeda Pharmaceuticals, Cambridge, MA (February)
- American Chemical Society, National Meeting, Dallas, TX (March)
- Biogen/Idec, Cambridge, MA (March)
- Merck Pharmaceuticals, Rahway, NH (March)
- Northwestern University, Chemistry Department (May)
- Cancer Grand Rounds, Yale School of Medicine (May)
- FASEB Meeting, 'Ubiquitin and Cellular Regulation', Saxton River, VT (June)
- Natural Products Gordon Conference, Proctor Academy, NH (July)
- American Chemical Society National Meeting, San Francisco (August) ○ Session Co-Chair, 'Inducing Protein Degradation with Bifunctional Molecules'
- University of Uppsala, Chemistry Department, Uppsala Sweden (September)
- Karolinska Institute, Department of Cell and Molecular Biology, Stockholm (Sept).
- University of Umeå, Department of Chemistry, Umeå, Sweden (September)
- XXIII International Symposium on Medicinal Chemistry (EFMC-ISMIC), Lisbon, Portugal (September)
  - Plenary Speaker, received the UCB-Ehrlich Award for Excellence in Medicinal Chemistry
- GlaxoSmithKline, Inc., Stevenage, UK (September)
- Virginia Tech, Life Sciences Seminar Series, Blacksburg, VA (October)
- Discovery on Target Meeting, Boston, MA (October)
  - Featured Presentation

## 2015

- Indiana University, Experimental and Developmental Therapeutics, (January)
- Wistar Institute, Philadelphia (January)
- University of Pittsburgh, Chemistry Department (March)
- Molecular Therapeutics of Cancer Research Meeting, Boston (July)
- 30<sup>th</sup> Aspen Cancer Conference: Mechanisms of Toxicity, Carcinogenesis, Cancer Prevention and Cancer Therapy, Aspen (July)
- 'Controlling Protein Processes for Drug Therapies', ACS Northeastern Section Symposium, Cambridge, MA (September)
- Fox Chase Cancer Center, Distinguished Lecture Series, Philadelphia (October)
- Stanford University, Frontiers in Biology Seminar Series (November)

- Children's Hospital of Philadelphia, Pathology Dept. (December)
- American Chemical Society PacifiChem Conference, Hawaii (December)

## 2016

- Albert Einstein School of Medicine, (January)
- U. Minnesota, Chemical Biology Colloquium Series, (February)
- Leopold Symposium on Drug Discovery and Translation, UPenn (March)
  - Keynote Speaker
- Connecticut Organic Synthesis Symposium, New Haven (April)
- MIT, Chemistry Department, Cambridge (May)
- Biogen, Cambridge, MA (May)
- MPM Healthcare Summit, Miami (May)
- AACR Precision Medicine Series: Targeting the Vulnerabilities of Cancer, (May)
- Oxford Drug Discovery Conference, Oxford, UK (June)
- FASEB Summer Ubiquitin Meeting, Montana (June)
- National Medicinal Chemistry Symposium, Chicago (June)
- American Chemical Society National Meeting, Philadelphia, (August)
- Discovery on Target: The Ubiquitin Proteasome System, Boston (September)
  - Keynote Speaker
- Cornell University, Chemistry Department, Ithaca (September)
- NYAS Chemical Biology Symposium, New York (October)
- University of Michigan, Ann Arbor (October)
- Prostate Cancer Foundation Annual Retreat, San Diego (October)
- U. Ottawa, Chemistry and Biomolecular Sciences (November)
  - 2016 Lemieux Lecture
- Symposium for President Andrew Hamilton, NYU Chemistry, New York, (November)
- 21st Japanese Foundation for Cancer Research-International Symposium on Cancer Chemotherapy, Tokyo (December)
- U. Tokyo, Chemistry Department (December)
- Taiho Pharmaceutical, Tsukuba, Japan (December)
- Daiichi-Sankyo Pharmaceuticals, Tokyo (December)
- RIKEN, Tokyo (December)
- U. Pennsylvania, Biochemistry Symposium (December)
- 28<sup>th</sup> EORTC-NCI-AACR Symposium, Munich (December)
  - Session Chair
- ETH, Institute of Biochemistry, Zürich, (December)
- German Cancer Research Center (DKFZ), Heidelberg, (December)

## 2017

- Swiss/German Medicinal Chemistry Society Meeting, Bern (February)
- University of Zürich, Chemistry Department (February)
- Bristol-Myers Squibb, Lawrenceville, NJ (March)
- Tata-Academia Knowledge Expo, Mumbai, India (March)
- American Association for Cancer Research Annual Meeting, Washington, DC (April)
  - 2017 Award for Outstanding Achievement in Chemistry in Cancer Research
- National American Chemical Society Meeting, San Francisco (April)
- CHI Drug Discovery Conference, San Diego (April)

- Plenary Lecture
- St. Jude's Hospital, Memphis (April)
- Genentech, South San Francisco, CA (May)
- Gilead, Foster City, CA (May)
- Oxford University, Chemistry Department (May)
- Crick Institute, London (May)
- UCB Pharma, Slough, UK (May)
- University of Amsterdam, Chemistry Department (May)
- Bayer Pharmaceuticals, Berlin (May)
- Leibniz Institute for Molecular Pharmacology, Berlin (May)
- Royal Society of Chemistry Chemical Biology Symposium, London (May)
- UK Ligases and Ubiquitin Pathways Conference, Birmingham, UK (May) ○

Keynote speaker

- Virginia Drug Discovery Consortium Annual Meeting, Charlottesville, VA (June)
  - Keynote speaker
- ACS MEDI-EFMC Medicinal Chemistry Frontiers Symposium, Philadelphia (June)
- U.Pennsylvania, Dept of Systems Pharmacology and Translational Therapeutics (July)
- Origins of Cancer Symposium, Van Andel Institute, Grand Rapids, MI (July)
- Chinese Medicinal Chemistry Symposium, Beijing (August)
  - Keynote speaker
- Tsinghua University, Department of Chemistry, Beijing (August)
- Chemical Biology in the Hub Symposium, Waltham, MA (September)
- Targeting the Ubiquitin Pathway Symposium, Boston, MA (September)
  - Keynote speaker
- Academic Drug Discovery Consortium Symposium, Bethesda, MD (October)
- McGill University, Chemistry Department, Montreal (October)
  - 2017 Belleau Lecture
- Purdue University, Chemistry Department (October)
  - Lilly-Brown Lecture in Chemical Biology
- Pfizer, Cambridge, MA (October)
- AACR-NCI-EORTC Molecular Targets and Cancer Therapeutics Conf., (October)
- AACR Translational Cancer Research for Basic Scientists Workshop, Boston (Oct.)
- Northwestern University, Biochemistry Retreat (November)
  - Keynote speaker
- University of Colorado, Dept of Chemistry and Biochemistry (December)
- Oregon Health & Science University, 'Chemical Biology & Physiology Conference, Portland, OR (December)
- Fred Hutchinson Cancer Center, Seattle (December)
- UT-Southwestern Medical Center, Dallas (December)
  - University Lecture Series

**2018**

- Keystone Meeting on Ubiquitin, Tahoe City, CA (January)
- University of Georgia, College of Pharmacy, Athens, GA (March)
  - David Chu Lectureship on Drug Discovery
- UCLA, Chemistry Department, Los Angeles, CA (March)
- Applied Pharmaceutical Chemistry Conference, Cambridge, MA (April)

- Plenary Lecture
- Pfizer Frontiers in Human Disease Symposium, Cambridge, MA (April)
- AACR Annual Meeting, Chicago, IL (April)
  - Chair/speaker, “Protein Stability” Symposium
- National Cancer Institute, NIH, Frederick, MD (May)
- Research Institute of Molecular Pathology (IMP), Vienna, (May)
- 2018 Vienna BioCenter Ubiquitin Symposium, Vienna, (May)
  - Keynote Speaker
- Bayer Life Science Workshop on “Protein Degradation with New Chemical Modalities”, Berlin (May)
  - Co-Chair
- Bioorganic Gordon Conference, Proctor, NH (June)
- Israel Chemical Society, Medicinal Chemistry Symposium, Rehovet, Israel (June)
  - Keynote Speaker
- Goethe-Universität Frankfurt am Main, Biochemistry Department (June)
- ETH, Chemistry Department, Zürich, Switzerland (June)
- University of Geneva, Chemistry Department, Geneva, Switzerland (June)
- University of Bern, Chemistry Department, Bern, Switzerland (June)
- EPFL, Chemistry Department, Lausanne, Switzerland (June)
- University of Basel, Chemistry Department, Basel, Switzerland (June)
- International Conference on Medicinal Chemistry, “Interfacing Chemical Biology and Drug Discovery”, Strasbourg, France (July)
- GRC on Enzymes, Coenzymes and Metabolic Pathways, Waterville, NH (July)
- Cold Spring Harbor Cancer Symposium, Cold Spring Harbor, NY (August)
  - Session Chair
- Royal Society of Chemistry, “Chemical Biology Meets Drug Discovery”, Stevenage, UK (September)
  - Plenary Speaker
- International Chemical Biology Society, Annual Meeting, Vancouver, Canada (Sept)
  - Keynote Speaker
- Targeted Protein Degradation Conference, Boston, MA (October)
- Harvard University, Chemistry Department, Cambridge, MA (October)
- Sanford Burnham Prebys, Cancer Center Retreat, La Jolla, CA (November)
  - Keynote Speaker
- UCSF, Helen Diller Family Comprehensive Cancer Center (November)

## 2019

- University of Miami School of Medicine (January)
- Childhood Cancer: Research Challenges and the Future of Therapy Symposium, San Antonio (March)
- University of Utah, Huntsman Cancer Center (March)
- University of Cambridge, Department of Chemistry, Cambridge, UK (April)
- Imperial College London, Department of Chemistry, London, UK (April)
- University of Lincoln, Department of Chemistry, Lincoln, UK (April)
- University of Leeds, Protein-Protein Interactions Conference, Leeds, UK (April)
- European Protein Degradation Congress, Basel, Switzerland (May)
  - Keynote Speaker
- Chemical Biology Meeting, Gothenburg, Sweden (May)

- Hinterzarten Circle on Cancer Research, Italy (May)
- Max Planck Institute for Biochemistry, Martinsried, Germany (May)
- Beatson Institute Conference, Glasgow, UK (June)
- Molecular Therapeutics of Cancer Conference, Lake Tahoe (July)
- Tri-Institutional PhD Program in Chemical Biology Symposium, New York (Sept)
- Discovery on Target Conference, Boston (September)
  - Keynote Speaker
- LabLinks: Tools and Tricks for Drugging the Undrugged, Cambridge, MA (October)
  - Keynote Speaker
- Targeted Protein Degradation Conference, Boston, MA (October)
  - Keynote Speaker
- NIH Director's Wednesday Afternoon Lecture Series, Bethesda, MD (November)
- American Society of Hematology (ASH) Annual Conference, Orlando, FL (December)
- Terry Fox Cancer Symposium, Toronto, Canada (December)
  - Keynote Speaker

## 2020

- Israeli Chemistry Society Annual Meeting, Jerusalem (February)
  - Keynote Speaker
- Yale Cancer Center, Grand Rounds (May)
- University of Toronto Mississauga, Chemistry Department (September)
- 3<sup>rd</sup> Targeted Protein Degradation (TPD) Summit (October)
  - Keynote Speaker
- Northwestern University Pharmacology Symposium (October)
- University of Sydney, Department of Chemistry (October)
- Targeted Protein Degradation Seminar Series, Dana Farber Cancer Institute (Oct.)
  - Keynote Speaker
- Scripps Research Institute (December)
  - Novartis Lecture
- CHAINS: The Dutch Chemistry Conference (December)
  - Plenary Lecture
- VI<sup>th</sup> International Drug Discovery and Development Forum, McGill University (Dec)
  - Plenary Lecture

## 2021

- Virginia Commonwealth University, Dept of Medicinal Chemistry (February)
- Rutgers University, Department of Pharmacology (March)
- University of Cambridge, Pharmacology Department (March)
  - David James Lecture
- Ubiquitin, Autophagy & Disease Meeting, Cold Spring Harbor Laboratory (April)
- 3<sup>rd</sup> Ras Initiative Symposium, National Cancer Institute, (May)
- "Bringing Chemistry to Medicine" Symposium, St. Jude's Hospital (July)
- 2<sup>nd</sup> Frankfurt Cancer Conference, Frankfurt (August)
- Comparative Medicine Institute Research & Innovation Summit (August)
- Harvard Medical School Chinese Scholars and Scientists Association, (Sept)
  - Keynote
- U.Pitt/Carnegie Mellon U., Molecular Biophysics/Structural Biology Program (Sept)
- AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics

(Oct)

- University of Illinois College of Pharmacy, Department of Pharma. Sciences (Oct)
- Wieland Prize Symposium, Munich, (October)
  - Plenary Lecture for receiving the Wieland Prize
- SUNY Buffalo, Department of Pharmaceutical Sciences, (October)
- U. Cambridge, MPhil course in Therapeutic Sciences (November)
- Scheele Prize Symposium, Stockholm (November)
  - Plenary Lecture for receiving the Scheele Prize
- Asian Federation for Medicinal Chemistry (AFMC) International Medicinal Chemistry Symposium 2021 (December)

## 2022

- UC Berkeley, Chemistry Department (February)
  - Amgen Lecture
- Stanford University, Student Hosted Colloquia Series (February)
- National Cancer Institute 22<sup>nd</sup> Annual Fellows' Colloquium (April)
  - Keynote Speaker
- AACR- Irving Weinstein Foundation Distinguished Lecture (April)
- GRK2243 Symposium: Understanding Ubiquitination- from Molecular Mechanism to Disease, Wuerzburg, Germany (May)
- German Chemical Biology Conference (June)
- Northwestern University, Chemistry Department (July)
  - Myron & Muriel Bender Distinguished Lecture in Organic Chemistry
- The Landscape of Post-Translational Modifications in Tumor Biology Workshop, National Cancer Institute (September)
  - Keynote Speaker
- U. Kansas, Department of Medicinal Chemistry (October)
  - Smissman Memorial Lecture
- U. Illinois, Chemistry Department, Urbana-Champaign (November)
  - Ken Rinehart Memorial Lecture

## 2023

- Targeted Protein Degradation Conference, Barcelona (May)
  - Keynote Speaker
- 21st International AEK Cancer Congress, Heidelberg (February)

## **TOTAL PUBLICATIONS: 181 H-Index: 90** (Google Scholar)

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- (2) Crews CM, AA Alessandrini, and RL Erikson. (1991) Mouse Erk-1 gene product is a

serine/threonine protein kinase that has the potential to phosphorylate tyrosine. [Proc. Natl. Acad. Sci. USA, 88:8845-8849](#). PMID: PMC52607

\* *subject of commentary in 'The Scientist'*

- (3) Crews CM, AA Alessandrini, and RL Erikson. (1992) The primary structure of MEK, a protein kinase that phosphorylates and activates the ERK gene product. [Science, 258:478-480](#). PMID: 1411546  
\* *subject of commentary in 'Journal of NIH Research'*
- (4) Crews CM and RL Erikson. (1992) Purification of a murine protein-tyrosine/threonine kinase that phosphorylates and activates the Erk1 gene product: Relationship to the fission yeast byr1 gene product. [Proc. Natl. Acad. Sci. USA, 89:8205-8209](#). PMID: PMC49886
- (5) Alessandrini AA, CM Crews, and RL Erikson. (1992) Phorbol ester stimulates a protein tyrosine/threonine kinase that phosphorylates and activates the Erk1 gene product. [Proc. Natl. Acad. Sci. USA, 89:8200-8204](#). PMID: PMC49885
- (6) Calvo V, CM Crews, TA Vik, and BE Bierer. (1992) Interleukin 2 stimulation of p70 S6 kinase is inhibited by the immunosuppressant rapamycin. [Proc. Natl. Acad. Sci. USA, 89:7571-7575](#). PMID: PMC49752
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- (8) Crews, CM and RL Erikson. (1993) Extracellular signals and reversible protein phosphorylation: What to MEK of it all. [Cell. 74:215-217](#). PMID: 8343948
- (9) Macdonald SG, CM Crews, L Wu, J Driller, R Clark, RL Erikson, F McCormick. (1993) Reconstitution of the raf-1-MEK-ERK signal transduction pathway in vitro. [Mol. Cell. Biol., 13:6615-6620](#). PMID: PMC364724
- (10) Huang W, AA Alessandrini, CM Crews, RL Erikson. (1993) Raf-1 forms a stable complex with MEK1 and activates MEK1 by serine phosphorylation. [Proc. Natl. Acad. Sci. USA, 90:10947-10951](#). PMID: PMC47898
- (11) Brott BK, AA Alessandrini, DA Largaespada, NG Copeland, NA Jenkins, CM Crews, and RL Erikson. (1993) MEK2 is a kinase related to MEK1 and is differentially expressed in murine tissues. [Cell Growth Differ. 4\(11\):921-9](#). PMID: 8297798
- (12) Crews CM, JL Collins, WS Lane, ML Snapper, and SL Schreiber. (1994) GTP-dependent binding of the antiproliferative agent didemnin to elongation factor 1a\*. [J.Biol.Chem. 269:15411-15414](#). PMID: 8195179  
\* *subject of 'Chemistry and Engineering News' (CEN) commentary*
- (13) Erikson RL, AA Alessandrini, CM Crews. (1995) Mek1, Mapk/Erk Kinase [The Protein Kinase Facts Book](#) p.275-277.

- Assumed Independent Research Program at Yale University -

- (14) Crews CM, WS Lane, and SL Schreiber. (1996) Didemnin binds to the protein palmitoyl thioesterase responsible for infantile neuronal ceroid lipofuscinosis [Proc. Natl. Sci. USA,](#)

[93:4316-4319](#). PMID: PMC39533

- (15) Crews CM. (1996) Deciphering Isozyme Function: Exploring Cell Biology with Chemistry in the Post-Genomic Era [Chemistry and Biology 3:961-965](#). PMID: 9000005
- (16) Sin N, L Meng, MQW Wang, JJ Wen, WG Bornmann, and CM Crews. (1997) The anti angiogenic agent fumagillin covalently binds and inhibits methionine aminopeptidase, MetAP 2. [Proc. Natl. Acad. Sci. USA, 94:6099-6103](#). PMID: PMC21008  
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- (19) Wen JJ, and CM Crews. (1998) Synthesis of 9-Fluorenylmethoxycarbonyl Protected Amino Aldehydes. *Tetrahedron Asymmetry*, 9 (11): 1855-1858.
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- (21) Meng L, N Sin, and CM Crews. (1998) The antiproliferative agent, didemnin B, uncompetitively inhibits palmitoyl protein thioesterase. [Biochemistry 37\(29\):10488-10492](#). PMID: 9671519
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- (25) Sin N, KB Kim, M Elofsson, L Meng, H Auth, BHB Kwok, and CM Crews. (1999) Total Synthesis of the Potent Proteasome Inhibitor Epoxomicin: A Useful Tool for Understanding Proteasome Biology. [Bioorganic & Med. Chem. Letters, 9:2283-2288](#). PMID: 10465562
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- (27) Elofsson M, U Splittgerber, J Myung, and CM Crews. (1999) Towards Subunit specific Proteasome Inhibitors: Synthesis and Evaluation of Peptide  $\alpha'\beta'$  epoxyketones. [Chemistry & Biology, 6:811-822](#). PMID: 10574782



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- (28) Kim K, J Myung, N Sin, and CM Crews. (1999) Proteasome Inhibition by the Natural Products Eponemycin and Dihydroeponemycin: Insights into Specificity and Potency. [Bioorg. Med. Chem. Lett. 9:3335-3340](#). PMID: 10612595
- (29) Groll M, K Kim, N Kairies, R Huber, and CM Crews. (2000) Crystal Structure of Epoxomicin:20S Proteasome Reveals a Molecular Basis for Selectivity of  $\alpha'$  $\beta'$ -Epoxyketone Proteasome Inhibitors. [J. Am. Chem. Soc., 122:1237-1238](#).
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- (42) Koh B and CM Crews. (2002) Chemical Genetics: A Small Molecule Approach to Neurobiology [\*Neuron\* 14:36\(4\):563-6](#). PMID: 12441047
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