



# Yun H. Choe, Ph.D.

PATENT AGENT

Yun is a Patent Agent in the New York office.



## Practices

[Patent](#)

## Education

Fordham University School of Law, JD, 2015  
Rutgers University, PhD, 1993  
Seoul National University, MS, 1987  
Seoul National University, BS, 1985

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## Client Work

Yun is involved in patent application drafting, submission, and prosecution. In addition, she works on patent portfolio management and conducts due-diligence patent reviews for licensing of products and technologies.

## Publications, Presentations and Recognitions

### Presentations

Choe, Y.H. (Invited Speaker) R&D in China & Global Collaboration: 5th KSEACH, Beijing, November 2019.

Choe, Y.H. (Invited Speaker) Definition of Limitation: Seoul National University, Korea, October 2019.

Choe, Y.H. (Invited Speaker) Invention, Patent, and Commercialization: Yonsei University, College of Pharmacy, Korea, November 2018.

Choe, Y.H. (Invited Speaker) Global Collaboration and Intellectual Property for Pharmaceutical Industry: AIMECS 2015, Korea, October 2015

Choe, Y.H. (Plenary Speaker) Patent, Drug Discovery and Drug Development: 2014 SCI-C SYMPOSIUM, Korea, November 2014

Choe, Y.H. (Invited Speaker) US Patent Law for Researchers in Drug Discovery and Development: Yonsei University, College of Pharmacy, Korea, November 2014.

Choe, Y.H. US Patent Law Changes after AIA and New Challenge for R & D, UKC, San Francisco, CA, USA, August, 2014.

Choe, Y.H. (Invited Speaker) US Patent Law Changes after AIA and New Challenge for R & D: Korean Pharmaceutical Industries, June 2014.

Choe, Y.H. Chairing and Introductory Lecture at WKMO (World Korean Medical Organization) annual meeting, Las Vegas, Drug Discovery & Development and Medical Profession, July 2013.

Choe, Y.H. (Invited speaker) Career in Pharmaceutical Industry: Research and Intellectual Property, Pharmaceutical Science Lecture Series, Korea University, College of Pharmacy, Korea, May 2012.

Choe, Y.H. (Invited speaker) US PATENT 101 for Scientist and Engineers. Seoul National University, College of Pharmacy, June, 2011.

Choe, Y.H. (Invited speaker) Reaching US Market: R&D, Intellectual Property and US FDA, Daegu Technopark R & D Center, Daegu, Korea, June 2011.

Choe, Y. H. (Invited speaker) Patent Law and Chemistry, Rutgers University, Chemistry Club, October 2010.

Choe, Y.H. Drug's Patent Life Extension via Technology: Case studies of Prodrugs and Drug Delivery Systems. UKC, Seattle, Washington, USA, August, 2010.

Choe, Y.H. (Invited speaker) US PATENT 101 for Scientist and Engineers. Korean-American Scientists and Engineers Association Technical Seminar, March 4, 2010.

Choe, Y.H. Polymeric Drug Delivery: Water Soluble or Water Insoluble? Seoul National University, College of Pharmacy, June, 2007.

Choe, Y.H. (Invited speaker) Polymeric Drug Delivery: Water Soluble or Water Insoluble? 16th Annual Meeting of Society of Biomedical Research, Washington D.C., October 25-27, 2006.

Kanamathareddy, S.; Goodrich, S.; Choe, Y.H.; Hicks, M. B.; Pudil, B. J.; East, A. J.; Letton, A. Biodegradable polymers from aroma -hydroxy acids: From medicinal chemistry to medical device applications. 230th ACS National Meeting, Washington D.C., August 28-September 1, 2005.

Yun H. Choe, Zheng Wang, Bryant J. Pudil, Michael B. Hicks, Suseela Kanamathareddy, Stephen Goodrich and Alan Letton. In Vivo and In Vitro Elution of NSAID and Drugs from Self-Delivering PolyNSAIDs Microspheres. American Chemical Society 37th Middle Atlantic Regional Meeting (MARM), Piscataway, NJ, May 22-25, 2005.

Choe, Y.H.; Kanamathareddy, S.; Goodrich, S.; Ease, A.J.; Letton, A. Improved and mild polymerization method for facile structural modification for biodegradable polymer drugs. 229th ACS National Meeting, San Diego, CA, March 13-17, 2005.

Yu, D.; Zhao, Y.; Choe, Y. H.; Zhao, Q.; Hsieh, M-C.; Peng, P. Cellular penetration and localization of polyethylene glycol. 95th Annual Meeting of AACR, Orlando, FL, March, 2004.

Yu, D.; Choe, Y. H.; Zhao, Q.; Hsieh, M-C.; Zhao, Y.; Peng, P. Cellular uptake of polyethylene glycol by macrophages. 43rd Annual Meeting of ASCB (American Society of Cell Biology), San Francisco, CA, December, 2003.

Choe, Y. H.; Greenwald, R. B.; Conover, C.D.; Peng, P. The Role of Linkers in Polymer Therapeutics: PEG Prodrugs of Anticancer Agents. 30th Annual Meeting of the Controlled Release Society, Glasgow, Scotland, United Kingdom, July 19- 23, 2003.

Choe, Y. H.; Wu, D.; Greenwald, R. B. PEG Prodrug of 10-Hydroxycamptothecin: Selective Phenolic Acylation of 10- Hydroxycamptothecin Using PEG Carboxylic Acid. Controlled Release Society Winter Symposium, Salt Lake City, UT, USA, March 2-5, 2003.

Choe, Y. H.; Greenwald, R. B.; Conover, C.D.; Wu, D.; Royzen, M.; Guan, S.; Gervacio, Y.; Borowski, V.; Mehlig, M. PEGylation of water soluble anticancer drug, Ara-C: Syntheses and in vitro & in vivo Anti-Tumor Efficacy. 29th Annual Meeting of the Controlled Release Society, Seoul, Korea, July 20-25, 2002.

Choe, Y. H.; Guan, S.; Greenwald, R. B. PEG Prodrugs of 6-Mercaptopurine (6-MP) - I: Synthesis and in vitro studies. 93rd Annual Meeting of AACR, San Francisco, CA, April, 2002.

Choe, Y. H.; Wu, D.; Royzen, M.; Guan, S.; Gervacio, Y.; Greenwald, R. B. Drug delivery of cytosine arabinoside by multi- loaded PEG prodrugs - I: Synthesis and in vitro studies. 92nd Annual Meeting of AACR, New Orleans, LA, March, 2001.

Choe, Y. H.; Greenwald, R. D.; Conover, C. D.; Shum, K.; Wu, D.; Royzen, M. Drug Delivery Systems using Trimethyl Lock System - II: Poly (ethylene glycol) Prodrugs of Amine Containing Compounds. 11th KSEA NE Regional Conference, Fort Lee, NJ, April, 2000.

Choe, Y. H.; Wu, D.; Royzen, M.; Guan, S.; Greenwald, R. B. PEG Prodrugs of Cytosine Arabinoside (ara-C) - I: Synthesis and in vitro studies. 91st Annual Meeting of AACR, San Francisco, CA, March, 2000.

Greenwald, R. D.; Choe, Y. H.; Wu, D.; Royzen, M.; Guan, S.; Boro, M.; Wu, Z. Drug Delivery Systems using Trimethyl Lock System - II: Poly (ethylene glycol) Prodrugs of Amine Containing Compounds. 90th Annual Meeting of AACR, Philadelphia, PA, April, 1999.

Knapp, S.; Choe, Y. H. Amidine Pseudodisaccharides. 204th ACS National Meeting, Washington D.C., August 1992

## Non-Patent Publications

Choe, Y. H.; Greenwald R. B.; Conover, C. D.; Zhao, H.; Longley, C.; Guan, S.; Zhao, Q.; Xia, J. PEG Prodrugs of 6-Mercaptopurine for Parenteral Administration Using Benzyl Elimination of Thiols. *Oncology Research* 2004 14, 455-468.

Greenwald, R. B.; Choe, Y. H.; McGuire, J.; Conover, C. D. Effective Drug Delivery by PEGylated Drug Conjugates. *Advanced Drug Delivery Reviews* 2003, 55, 217-250.

Greenwald, R. B.; Choe, Y. H.; Wu, D. Selective Phenolic Acylation of 10-Hydroxy Camptothecin using Poly (Ethylene Glycol) Carboxylic Acid. *Bioorg. & Med. Chem. Lett.* 2003, 13, 577-580.

Choe, Y. H.; Conover, C. D.; Wu, D.; Royzen, M.; Gervacio, Y.; Borowski, V.; Mehlig, M.; Greenwald, R. B. Anticancer Drug Delivery Systems: Multi-loaded N4-Acyl Poly (ethylene glycol) Prodrugs of Ara-C. II. Efficacy in Ascites and Solid Tumors. *J. Control. Release* 2002, 79, 55-70.

Choe, Y. H.; Conover, C. D.; Wu, D.; Royzen, M.; Greenwald, R. B. Anticancer Drug Delivery Systems: N4-Acyl Poly (ethylene glycol) Prodrugs of Ara-C. I. Efficacy in Solid Tumors. *J. Control. Release* 2002, 79, 41-53.

Zhao, H.; Lee, C.; Sai, P.; Choe, Y. H.; Boro, M.; Pendri, A.; Guan, S.; Greenwald, R. B. 20-O-acylcamptothecin derivatives: evidence for lactone stabilization. *J Org Chem.* 2000 65, 4601-4606.

Greenwald, R. B.; Conover, C. D.; Choe, Y. H. Poly(ethylene glycol) Conjugated Drugs and Prodrugs: A Comprehensive Review. *Crit. Rev. Ther. Drug Carrier Syst.* 2000, 17, 101-161.

Greenwald, R. B.; Choe, Y. H.; Conover, C. D.; Shum, K.; Wu, D.; Royzen, M. Drug Delivery Systems based on Trimethyl Lock lactonization: Poly (ethylene glycol) Prodrugs of Amine Containing Compounds. *J. Med. Chem.* 2000, 43, 475-487.

Greenwald, R. B.; Conover, C. D.; Pendri, A.; Choe, Y. H.; Martinez, A.; Wu, D.; Guan, S.; Yao, Z.; Shum, K. L. Drug delivery of anticancer agents: water soluble 4-poly (ethylene glycol) derivatives of the lignan, podophyllotoxin. *J. Controlled Release* 1999, 61, 281-294.

Greenwald, R. B.; Pendri, A.; Conover, C. D.; Zhao, H.; Choe, Y. H.; Martinez, A.; Shum, K.; Guan, S. Drug Delivery Systems Employing 1,4- or 1,6-Elimination: Poly (ethylene glycol) Prodrugs of Amine Containing Compounds. *J. Med. Chem.* 1999, 42, 3657-3667.

Greenwald, R. B.; Pendri, A.; Conover, C. D.; Lee, C.; Choe, Y. H.; Gilbert, C.; Martinez, A.; Xia, J.; Wu, D.; Hsue, M. Camptothecin-20-PEG Ester Transport Forms: the Effect of Spacer Groups on Antitumor Activity. *Bioorg. & Med. Chem.* 1998, 6, 551.

Knapp, S.; Choe, Y. H.; Reilly, E. Amidine Pseudodisaccharides. *Tetrahedron Lett.* 1993, 34, 4443.

Knapp, S.; Gibson, F.; Choe, Y. H. Radical Based Annulation of Iodolactams. *Tetrahedron Lett.* 1990, 31, 5397.

Kim, D.; Choe, Y. H., et al. Studies Toward the Total Synthesis of Strychnine (I). *Heterocycles* 1987, 25, 283.

Chung, W.; Choe, Y. H.; Kwon, Y. Studies on the Synthesis of New Cholinergic Blocking Agents. *Seoul National University Journal of Pharmaceutical Sciences* 1986, 11, 33.

## US Patents

Choe, Y. H., et al. High molecular weight polymers, devices and method for making and using same. *US Patent No. 8,232,322*, July 31, 2012.

Choe, Y. H., et al. Solution polymerization processes to prepare a polymer that degrades to release a physiologically active agent. *US Patent No. 7,662,864*, February 16, 2010.

Choe, Y. H.; R. B. Greenwald. Polymeric thiol-linked prodrugs employing benzyl elimination systems, *US Patent No. 7,262,164*, August 28, 2007.

Choe, Y. H.; R. B. Greenwald. Polymeric thiol-linked prodrugs, *US Patent 7,033,583*, April 25, 2006

Choe, Y. H.; R. B. Greenwald. Prodrugs of anticancer agents employing substituted aromatic acids, *US Patent 6,936,597*, Aug. 30, 2005.

Choe, Y. H.; R. B. Greenwald. Terminally-branched polymeric linkers containing extension moieties and polymeric conjugates containing the same, *US Patent 6,777,387*, August 17, 2004.

Choe, Y. H.; R. B. Greenwald. Polymer conjugates of biologically active agents and extension moieties for facilitating conjugation of biologically active agents to polymeric terminal groups, *US patent 6,756,037*, June 29, 2004.

Martinez, A.; Pendri, A.; Greenwald, R. B.; Choe, Y. H. Terminally-branched polymeric linkers and polymeric conjugates containing the same, *US Patent 6,638,499*, October 28, 2003.

Martinez, A.; Pendri, A.; Greenwald, R. B.; Choe, Y. H. Terminally-branched polymeric linkers and polymeric conjugates containing the same, *US Patent 6,395,266*, May 28, 2002.

Greenwald, R. B.; Choe, Y. H. Polymer Conjugates of Ara-C and Ara-C Derivatives. *US Patent 6,376,470*, April 23, 2002.

Greenwald, R. B.; Choe, Y. H.; Pendri, A. Trialkyl-Lock Facilitated Polymeric Prodrugs of Amino-Containing Bioactive Agents. *US Patent 6,303,569*, October 16, 2001.

Greenwald, R. B.; Choe, Y. H.; Pendri, A. Biodegradable High Molecular Weight Polymeric Linkers and Their Conjugates. *US Patent 6,251,382*, June 26, 2001.

Greenwald, R. B.; Choe, Y. H.; Pendri, A. Coumarin and Related Aromatic-Based Polymeric Prodrugs. *US Patent 6,214,330*, April 10, 2001.

Greenwald, R. B.; Pendri, A.; Choe, Y. H. Polymeric Prodrugs of Amino- and Hydroxyl-Containing Bioactive Agents. *US Patent 6,180,095*, January 13, 2001.

Martinez, A.; Pendri, A.; Greenwald, R. B.; Choe, Y. H. Terminally-Branched Polymeric Linkers and Polymeric Conjugates Containing the Same. *US Patent 6,153,655*, November 28, 2000.

Greenwald, R. B.; Choe, Y. H.; Pendri, A. Acyl Polymeric Derivatives of Aromatic Hydroxyl-Containing Compounds. *US Patent 6,011,042*, January 4, 2000.

Greenwald, R. B.; Choe, Y. H. Trialkyl-Lock Facilitated Polymeric Prodrugs of Amino-Containing Bioactive Agents. *US Patent 5,965,119*, October 12, 1999.

## Recognitions

Inventor's Awards, Enzon Pharmaceuticals, 1997~2003

Teaching Excellency Awards, Department of Chemistry, Rutgers University, 1988 & 1989.

Alumni Fellowship, College of Pharmacy, Seoul National University, 1981 & 1982.

## Life Beyond the Law

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Yun likes singing as a soprano and playing piano during her spare time. Yun is also a simultaneous translator between English and Korean leading the translation team at her church.