

Jaechul Shim

Director, Chemical Synthesis, R&D Center, South Korea

Conshohocken, PA - Email me on Indeed: [indeed.com/r/Jaechul-Shim/b6b570ca33132823](https://www.indeed.com/r/Jaechul-Shim/b6b570ca33132823)

Technology transfer from process research to API production under cGMP in cooperation with QA and production teams.

Project management experience in CMO/CRO with overseas collaborations (US, EU, China).

Business Development in Antiviral R&D.

Process research for API production.

Drug discovery for a therapeutic in castration-resistant prostate cancer based on medicinal chemistry experienced in cancer, infectious and inflammatory diseases.

Nationality: U.S citizen

WORK EXPERIENCE

Director, Chemical Synthesis, R&D Center, South Korea

ST Pharm - 2011 to 2013

Drug Discovery: Therapeutics for treatment of Castration-Resistant Prostate Cancer

- Process/Chemical Development of Antiviral APIs: Sofosbuvir (GS-7977, Hepatitis C); 5-NR (HIV) and the related raw materials

Senior Research Scientist, Chemical Sciences

Wyeth - Pearl River, NY - 1998 to 2010

Infectious Disease:

- RSV(respiratory syncytial virus) Polymerase Inhibitors: quinolinecarboxylic acids as lead for inhibition via Pfitzinger synthesis
- HCV polymerase inhibitors: tetrahydropyranoindoles as Inhibitors.
- Tetracycline Analogs: orally active derivatives were targeted to overcome the drawback of the IV injections.

Inflammation/Immunology:

- IRAK4 inhibitors
- PKC θ Inhibitors: sulfonamide-containing 3-cyanopyridines as • Optimized Leads for cPLA2 α Inhibition in inflammatory diseases (rheumatoid arthritis, asthma)
- Synthesized Inhibitors of B7.1 (immunology, organ transplantation)
- Prepared peptides containing tyrosine sulfate as Inhibitor of P-Selectin

Oncology:

- Prepared ligands of G-Quadruplexes
- Prepared STAT3 Inhibitors
- Synthesized enantioenriched pyranonaphthoquinone lactones as AKT Inhibitors

Research Chemist

Biogen, Inc - Cambridge, MA - 1997 to 1998

Developed a new route for the synthesis of CVT-124 and studied subsequent optimization as a therapeutic for Congestive Heart Failure

- Synthesized Analogs of CVT-124

Senior Chemist

Pharm-Eco Laboratories, Inc - Lexington, MA - 1994 to 1997

Developed a new route for the synthesis of an HIV protease inhibitor (amprenavir)

- Executed a process development project on the synthesis of a MDR reversal agent
- Investigated a new research project on the synthesis of a novel antipsychotic drug (rigid analogs of Clozapine) in cooperation with the molecular modeling department
- Performed a combinatorial synthesis of dopaminergic D3 agonist potentially useful for the treatment of cocaine dependency (NIH funded project)
- Completed the synthesis of new broad spectrum antibiotics for opportunistic infections (NIH funded project) which involved the synthesis of proprietary aromatic dicationic compounds
- Developed a synthesis of innovative prodrugs for the treatment of opportunistic infections (NIH funded project) as a continuation of aromatic dicationic compound synthesis

Professor Yoshito Kishi

Harvard University - 1992 to 1993

Performed an enantioselective total synthesis of Indolactam V carbon analog using Semmelhack's chromium tricarbonyl complex of indole derivatives

Research Assistant

University of California - Irvine, CA - 1987 to 1992

Advisor: Professor Larry E. Overman

- Initiated and completed the first total synthesis of (±)- and (-)-pancracine using Overman's Tandem aza-Cope Mannich reactions as the key step

Teaching Assistant

- For undergraduate organic chemistry lab sessions for six quarters and a graduate organic chemistry lecture for one quarter, supervising actual lab work of students, proctoring/grading the exams and providing office hours for students

Senior Researcher

Pacific Chemical Company, Inc - 1985 to 1987

Scale-up Study on the Production of Minoxidil

Seoul National University Research Assistant

Advisor: Professor Jung-Hyu Shin

- Prepared 8,9-dehydroadamantyl carbocation from the corresponding carbinol at low temperature for F19 NMR study in comparison to adamantly carbocation for the relative stability in restricted conformation

Teaching Assistant

- For undergraduate organic chemistry lab sessions for four semesters for premed and engineering majors, supervising actual lab work of students, proctoring/grading the exams

Membership:

Member of the American Chemical Society (ACS)

Member of Korean-American Scientists and Engineers Association (KSEA)

Member of Korean American Society of Biotech and Pharmaceuticals (KASBP)

EDUCATION

Harvard University

Ph.D. in Organic Chemistry

University of California - Irvine, CA

M.S. in Organic Chemistry

Seoul National University