Jae-Sang Ryu, PhD

Postdoctoral Fellow

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Ewha Womans University Department Webpage

Start Year

2003

End Year

2005

Associate Professor, 2011–present
Assistant Professor, 2006–2011
Lecturer, 2005–2006
College of Pharmacy
Ewha Womans University
Seoul, Korea

PhD, Northwestern University, 2003

MSc, Seoul National University, 1996

BSc, Seoul National University, 1993

Publications

Visit PubMed for a full listing of Jae-Sang Ryu's publications.

U.S. Patent 8,461,128, "Antimicrobial Agents and Uses Thereof", issued June 11, 2013.

9) Ferreras, J. A.; Stirrett, K. L.; Lu, X.; Ryu, J.-S.; Soll, C. E.; Tan, D. S.; Quadri, L. E. N.* "Mycobacterial phenolic glycolipid virulence factor biosynthesis: Mechanism and small-molecule inhibition of polyketide chain initiation." *Chem. Biol.* 2008, *15*, 51-61.

[Abstract | PDF | PMC]

8) Ferreras, J. A.; Ryu, J.-S.; Di Lello, F.; Tan, D. S.*, Quadri, L. E. N.* "Small-molecule inhibition of siderophore biosynthesis in *Mycobacterium tuberculosis* and *Yersinia pestis*." *Nature Chem. Biol.* 2005, *1*, 29-32.

[Abstract | PDF]

- Highlighted in *Nature*, *Nat. Chem. Biol.*, *Chem. Eng. News*, and *Mercosur Económico* (PDF)

7) Ryu, J.-S.; Marks, T. J.*; McDonald, F. E.* "Organolanthanide-catalyzed intramolecular hydroamination/cyclization/bicyclization of sterically encumbered substrates. Scope, selectivity, and catalyst thermal stability for amine-tethered unactivated 1,2-disubstituted alkenes." *J. Org. Chem.* 2004, *69*, 1038-1052.

[Abstract | PDF]

6) Ryu, J.-S.; Li, G. Y.; Marks, T. J.* “Organolathanide-catalyzed regioselective intermolecular hydroamination of alkenes, alkynes, vinylarenes, di- and trivinylarenes, and methylenecyclopropanes. Scope and mechanistic comparison to intramolecular cyclohydroaminations.” *J. Am. Chem. Soc.* 2003, *125*, 12584-12605.

[Abstract | PDF]

5) Ryu, J.-S.; Marks, T. J.*; McDonald, F. E.* “Organolanthanide-catalyzed intramolecular hydroamination/cyclization of amines tethered to 1,2-disubstituted alkenes.” *Org. Lett.* 2001, *3*, 3091-3094.

[Abstract | PDF]

4) Shin, D.-Y.; Ryu, J.-S.; Hyun, S.-S; Park, H.-J.; Jeon, R.-O.; Suh, Y.-G.* “Total synthesis of sufetanil.” *Arch. Pharmacal Res.* 1999, *22*, 398-400.

[Journal]

3) Suh, Y.-G.*; Shin, D.-Y.; Cho, K.-H.; Ryu, J.-S. “Concise and versatile syntheses of *N*-arylalkylpiperidines as potential intermediates for 4-anilidopiperidine analgesics.” *Heterocycles* 1998, *48*, 239-242.

[Abstract | PDF]

2) Suh, Y.-G.*; Jun, R.-O.; Jung, J.-K.; Ryu, J.-S. “Stereoselective construction of *C*-13 quaternary carbon unit of isopimarane diterpene and its synthetic application to isopimarol diterpene.” *Synth. Commun.* 1997, *27*, 587-593.

[Abstract | PDF]

1) Suh, Y.-G.*; Choi, Y. G.; Ryu, J.-S.; Cho, Y.-S. “Synthesis of anatoxin a via intramolecular Mannich reaction.” *Soul Taehakkyo Yakhak Nonmunjip* 1995, *20*, 12-20.

12/27/2007 New Drug Targets May Fight Tuberculosis and Other Bacterial Infections in Novel Way (Weill Cornell News)

Research into “virulence factors” expands war against infectious disease beyond antibiotics, Weill Cornell researchers say. [Full text]

06/13/2005 Investigadores elaboran compuesto para combatir bacterias de la tuberculosis y la peste negra

(Mercosur Económico)

Investigadores de dos prestigiosas instituciones de Nueva York…desarrollaron un compuesto capaz de combatir bacterias -de la tuberculosis y de la peste negra- y permitir la elaboración de nuevas drogas contra una enfermedad que afecta a un tercio de la población mundial -la tuberculosis- y otra en condiciones de ser empleada como arma biológica en bioterrorismo -la peste negra-. [Full text (PDF)]

05/30/2005 A New Way To Fight Bacteria: Inhibitor blocks biosynthesis of key bacterial iron-scavenging agent (Chemical & Engineering News)

A novel strategy for fighting bacterial infections has been demonstrated: blocking bacterial biosynthesis of siderophores, compounds that make it possible for certain bacteria to obtain iron, which they require to grow and to cause disease. [Full text]

05/26/2005 Chemical Biology: Ironing out bugs (Nature)

Researchers from Cornell University and the Memorial Sloan Kettering Cancer Center in New York have devised a molecule that binds to and inhibits enzymes involved in siderophore synthesis. The compound successfully reduces the growth of both *Mycobacterium tuberculosis* and *Yersinia pestis* under iron-poor *in vitro* conditions. [Full text]

01/04/2005 NIH Initiatives Target Chemistry: New road-map-related initiatives show agency values role of chemistry in biomedical research (Chemical & Engineering News)

Graduate student Shiying Shang and postdoctoral fellow Jae-Sang Ryu work on developing diversity-oriented syntheses of libraries in the lab of Tan—work that fits nicely into a new road-map-related initiative. [Full text (membership req'd) | Full text (PDF)]

03/15/2004 Pin the Tail on the Olefin: Researchers seek practical methods for adding terminal functional groups to alkenes (Chemical & Engineering News)

Chemists have been trying for some time to find a practical synthetic method that the chemical industry could use to add terminal functional groups such as alcohols, ethers, and amines to olefins. Several research teams have now progressed toward that goal by developing anti-Markovnikov reactions that add such functional groups to alkene double bonds

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[Full text (membership req'd)]