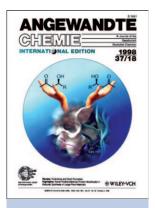
Author Profile



C. F. Barbas III

The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "anti-Selective Asymmetric Michael Reactions of Aldehydes and Nitroolefins Catalyzed by a Primary Amine/Thiourea": H. Uehara, C. F. Barbas III, Angew. Chem. 2009, 121, 10032–10036; Angew. Chemie. Int. Ed. 2009, 48, 9848–9852.



C. F. Barbas III has also featured on the cover of Angewandte Chemie:
"Catalytic Enantioselective Retro-Aldol Reactions:
Kinetic Resolution of β-Hydroxyketones with Aldolase Antibodies": G. Zhong, D. Shabat, B. List, J. Anderson, S. C. Sinha, R. A. Lerner, C. F. Barbas III, Angew. Chem. 1998, 110, 2609–2612; Angew. Chem. Int. Ed. 1998, 37, 2481–2484.

Carlos F. Barbas III

Date of birth: November 5, 1964

Awards:

interests:

Current research

Position: Kellogg Professor of Chemistry and Molecular Biology, The Scripps Research Institute (USA)

Education: 1981–1985 BS in Chemistry and Physics, Eckerd College, Florida (USA) 1985–1989 PhD with Chi-Huey Wong, Texas A&M University (USA)

1989–1991 Postdoc with Richard Lerner and Steven Benkovic, The Scripps Research Institute

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Annual Course on "Phage Display Of Proteins & Peptides"; Board of Consulting Editors for Bioorganic & Medicinal Chemistry Letter and Bioorganic & Medicinal Chemistry; American Society for Microbiology; International Advisory Editorial Board for Chemical Society Reviews; Editorial Board, MedChemComm; Founder of the biotechnology companies

Prolifaron, CovX, and Zyngenia and inventor of their underlying core technologies **2009** Arthur C. Cope Scholar Award; **2009** Tetrahedron Young Investigator Award—Bio-

organic & Medicinal Chemistry; Since 2003, ISI Highly Cited Researcher; 2000 Co-recipient of the Presidential Green Chemistry Challenge Award; 1993–1997 Investigator Award, Cancer Research Institute: 1992–1995 Scholar of The American Foundation for AIDS Research

Research Institute; 1992–1995 Scholar of The American Foundation for AIDS Research Advancing the science of therapeutic antibodies, vaccines, zinc-finger technology, and asymmetric catalysis with organic molecules through studies at the interfaces of chemistry,

biology, and medicine; Chemical reactivity and molecular recognition; Development of new

classes of drugs and vaccines for cancer and HIV-1 **Hobbies:** Travel, hiking, scuba diving, snow boarding, anything with my children

My biggest inspiration is ... the life work of Paul Ehrlich.

My favorite subject at school was ... science, of course.

A good work day begins with ... an espresso and the New York Times.

The biggest problem that scientists face is ... educating the public and lobbying governments to fund science properly.

The biggest challenge facing scientists is ... species loss, habitat destruction, and the development of efficient environmentally sound approaches to synthesis and energy management.

If I could have dinner with three famous scientists from history, they would be ... Leonardo da Vinci, Charles Darwin, and Paul Ehrlich.

The most important future applications of my research are ... new and environmentally sound processes to synthesize drugs, new treatments for cancer, inflammation, and diabetes, as well as new approaches to vaccines.

f I were not a scientist, I would be ... an astronaut, but right now I think I have the greatest job in the world.

My most exciting discovery to date has been ... understanding and generalizing enamine catalysis with enzymes and amines and inventing chemically programmed antibodies and phage antibody technologies.

The most exciting thing about my research ... is the potential to impact the lives of many in a positive way through discovery and invention.

My 5 top papers:

- "Efficient Aldolase Catalytic Antibodies That Use the Enamine Mechanism of Natural Enzymes": J. Wagner, R. A. Lerner, C. F. Barbas III, Science 1995, 270, 1797 – 1800.
- "Proline-Catalyzed Direct Asymmetric Aldol Reactions": B. List, R. A. Lerner, C. F. Barbas III, *J. Am. Chem. Soc.* 2000, 122, 2395–2396.
- "Enamine-Based Organocatalysis with Proline and Diamines: The Development of Direct Catalytic Asymmetric Aldol, Mannich, Michael, and Diels-
- Alder Reactions": W. Notz, F. Tanaka, C. F. Barbas III, *Acc. Chem. Res.* **2004**, *37*, 580–591.
- "Organocatalysis Lost: Modern Chemistry, Ancient Chemistry, and an Unseen Biosynthetic Apparatus": C. F. Barbas III, Angew. Chem. 2008, 120, 44–50; Angew. Chemie. Int. Ed. 2008, 47, 42–47.
- "Instant Immunity Through Chemically Programmable Vaccination And Covalent Self-Assembly": M. Popkov, B. Gonzalez, S. Sinha, C. F. Barbas III, *Proc. Natl Acad Sci, U.S.A* 2009 106, 4378–4383.

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