

# RENATA X. KOVER, Ph.D.

web: [www.JandR.org](http://www.JandR.org) - email: [kover@JandR.org](mailto:kover@JandR.org)

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## Work & Research Experience:

### CONSULTECH SERVIÇOS DE TECNOLOGIA CIENTÍFICA, Rio de Janeiro, Brazil

Founder 2004 - present

R&D consulting company focused on development of integrated solutions in process optimization, knowledge management, automation, quality control and environmental responsibility for the Biotechnological, Pharmaceutical, Veterinary, Cosmetic and Agro-Industry.

Areas of expertise include synthetic organic chemistry, phytochemistry, analytical chemistry, *in vitro* biological activity testing, lead compound identification and optimization, patent strategy and environmental law.

### EXTRACTA MOLÉCULAS NATURAIS SA, Rio de Janeiro, Brazil

Director, CTO September 2001 - 2003

Technical Development Director, September 1999 - August 2001

Chemistry Manager, February 1999 - August 1999

R&D company started in 1999 committed to add value to the Brazilian Biodiversity through the discovery of new bioactive molecules for the Pharmaceutical, Veterinary, Cosmetic and Agro Industry. Designed and led the implementation of the company's scientific plan including focus definition, selection of equipment and facilities, implementation schedule, recruiting and management of a team of 35 scientists and technicians. Actively participated in the development of protocols for collection and sample processing, biological assay development and automation, bioguided fractionation, hit isolation and chemical structure elucidation.

### NEUROGEN CORPORATION, Branford, CT USA

Visiting Scientist, 1997

Worked in the Medicinal Chemistry division as part of a team designing and synthesizing drugs in the Schizophrenia therapeutic area (organic synthesis for development and optimization of leads). Worked closely with the Combinatorial Chemistry division, developing new reactions to be incorporated in the company's parallel synthesis programs.

### YALE UNIVERSITY, Department of Chemistry, CT USA

Graduate Research Assistant, September 1989 - 96

Thesis Advisor: Professor Frederick E. Ziegler

Area of Research: Organic synthesis of natural products. Thesis: Studies of Radical Fragmentation in Cyclic Thionocarbonates - Applications on the Total Synthesis of Trichothecene FS-2.

### UNIVERSIDADE FEDERAL do RIO de JANEIRO, Department of Chemistry, Brasil

Research Assistant, January 1989 - July 1989

Undergraduate Research Assistant, 1986 - 1988

Research Advisor: Warner Bruce Kover

Area of Research: Physical organic chemistry studying the "Solvolysis of the N- (p-Nitrobenzyl)-p-methoxybenzo hydroxamic Acid, an approach to a chemoselective synthesis of secondary amines"

Research Advisor: Joel Jones Junior

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Area of Research: Organic synthesis/methodology working on the project "Use of limonene derivatives in the formation of functionalized five member rings."

## Education:

YALE UNIVERSITY, New Haven, CT USA

PhD., Organic Chemistry, Dec. 1998

M.S., Organic Chemistry, May 1993

UNIVERSIDADE FEDERAL do RIO de JANEIRO, Rio de Janeiro, Brazil

B.A. in Chemistry, December 1988

## Teaching Experience:

YALE UNIVERSITY, Department of Chemistry, CT USA

Part Time Teaching Assistant - General Chemistry (1989/90), Organic Lab (1993)

Full Time Teaching Assistant - Organic Lab (1995/96)

UNIVERSIDADE FEDERAL do RIO de JANEIRO, Rio de Janeiro, Brasil

High School Chemistry for university employees and their families (1987)

## Science Skills:

Synthesis, purification and characterization of small "drug like" organic molecules

Isolation and structure determination of natural products

Automation and validation of bio-assays for high throughput screening

Drug profiling with determination of bioactivity, selectivity and specificity; selecting compounds for prioritization in a drug discovery program

Development of quality control methodologies using statistical analysis of data

Proficiency with multidimensional NMR spectroscopy, including the design and programming of pulse sequences (operated both Bruker and Varian systems).

Experience in a wide variety of analytical methods, including GC, HPLC and LCMS.

Computer simulations such as *ab initio* (Gaussian92), and molecular mechanics (MacroModel)

## Computer Skills:

Accomplished user of both Linux and Windows

Full command of word processors, spreadsheets, accounting software and graphing/data analysis packages.

## Management Skills:

Coordination of lead discovery projects involving scientists in chemistry, biology and information technology.

Business plan development and budget management

Accumulated the position of financial director at Extracta for a period of 6 months

Client interface

Developed Knowledge Management strategies and tools to integrate the lead discovery program at Extracta

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## **Personal Information:**

Effective team player and an excellent communicator

**Contact:** Av. Portugal 858/104 – Urca - Rio de Janeiro – Brazil  
Phone: (55-21) 2295 1854 – Cell: (55-21) 9613 9364

**References:** Available upon request

**Citizenship:** Dual – Brazil and USA

**Languages:** Fluent: Portuguese and English; Read: French and Spanish

**Hobbies:** Scuba Diving, Photography, Travel

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## Publications and Presentations:

RENATA XAVIER KOVER; Concepts and Design in High Throughput Screening; 1a Escola de Inverno em Química Combinatória Federal University of Rio Grande do Sul, Porto Alegre, Brasil, Agosto 21, 2005

RENATA XAVIER KOVER; Highthroughput Screening of Natural Products; First Amsud-Pasteur BioEntrepreneurship Forum, Sao Paulo, Brasil, June 24, 2003

RENATA XAVIER KOVER; High-throughput screening of natural products; *ICS-UNIDO Workshop: Trends and Applications of Combinatorial Chemistry*, Sao Paulo, Brasil, November 23, 2002

ZHAO, HE; THURKAUF, ANDREW; HE, XIAOSHU; HODGETTS, KEVIN; ZHANG, XIAOYAN; RACHWAL, STANISLAW; KOVER, RENATA X.; HUTCHISON, ALAN; PETERSON, JOHN; KIELTYKA, ANDRZEJ; BRODBECK, ROBBIN; PRIMUS, RENEE; WASLEY, JAN W. F. Indoline and piperazine containing derivatives as a novel class of mixed D2/D4 receptor antagonists. Part 1: Identification and structure-activity relationships. *Bioorganic & Medicinal Chemistry Letters* (2002), 12(21), 3105-3109.

RENATA KOVER AND JON LAPHAM; Development of an Integrated System to Manage a Natural Product Lead Discovery Program; *Society for Biomolecular Screening – 7th Annual Conference and Exhibition*, 2001, Baltimore, USA

RENATA XAVIER KOVER, SILVA TERDJANIAN, JENNIFER TRAN AND ANDREW THURKAUF; Benzylpiperazinyl and piperidinyl ethanone derivatives: dopamine receptor subtype specific ligands; The United States Patent and Trademark Office, Patent number US6084098 A. Granted: July 4, 2000.

FREDERICK E. ZIEGLER, RENATA X. KOVER AND NATHAN N. K. YEE; Studies Directed Toward the Synthesis of FS 2: Observations on the Fragmentation of Cyclobutylcarbinyl Radicals, *Tetrahedron Lett.*; 2000, **41**, 5155.

FERNANDO DE LIMA CASTRO, RENATA XAVIER KOVER, WARNER BRUCE KOVER AND JOEL JONES JR ; A Novel Synthesis of 1-Acetyl-4-Isopropenyl-1-cyclopentene by Chemoselective Cyclization of 4-Methyl 3-(oxobutyl)-4-pentenal an Important Intermediate for Natural Product Synthesis; *J Braz. Chem. Soc.*, Brasil, **v10**, no. 2, p.112-116, 1999.

ZIEGLER, F. E.; BELEMA, M.; HARRAN, P. G.; KOVER, R. X., In *Encyclopedia of Reagents for Organic Synthesis*; Editor Leo A. Paquette, John Wiley and Sons, Inc.: Sussex, England, 1995; Vol. 7, p 5099-5102.

CAGNON, J.R; KOVER, R.X; ARAUJO, W.N; MATOS, J.A; Lavoisier, A Nota Selada de 1772; V Coloquio da Historia da Quimica, Campinas 1989.

RENATA XAVIER KOVER AND WARNER BRUCE KOVER; N-(p-Nitrobenzyl)-p-methoxybenzo hydroxamic acid: synthesis of a new substrate for the study of nitrene ions; *Sociedade Brasileira para o Progresso da Ciencia*, 1989.

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RENATA XAVIER KOVER AND JOEL JONES JUNIOR ; Synthetic Utilization of the tosylate (1S, 2S, 5R)-2-hydroxy-2-methyl-5-isopropenylcyclohexane; Chemistry Research Symposium, Federal University of Rio de Janeiro, 1988.