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PROFESSIONAL EXPERIENCE

2007 – present: Pfizer, Inc. (Groton, CT)
Principal Scientist
2005 – 2007: Amgen, Inc. (South San Francisco, CA)
Scientist
2001 – 2005: Yale University (New Haven, CT)
Postdoctoral Research Associate and Associate Research Scientist
Research Advisor: Professor William L. Jorgensen

EDUCATION

1998 – 2001: Federal University of Rio de Janeiro (Rio de Janeiro, Brazil)
Ph.D. in Organic Chemistry *with distinction* (August 2001)
Research Advisor: Professor Ricardo Bicca de Alencastro
1997 – 1998: Federal University of Rio de Janeiro (Rio de Janeiro, Brazil)
M.S. in Organic Chemistry *with distinction* (May 1998)
Research Advisor: Professor Ricardo Bicca de Alencastro
1992 – 1996: Federal University of Rio de Janeiro (Rio de Janeiro, Brazil)
B.S. in Chemical Engineering *with distinction*

PUBLICATIONS

1. *Addressing Limitations with the MM-GB/SA Scoring Procedure using the Watermap Method and Free-Energy Perturbation Calculations.*
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4. *From Docking False-Positive to Active Anti-HIV Agent.*
   G. Barreiro, J. T. Kim, **C. R. W. Guimarães**, C. M. Bailey, R. A. Domaoal, L. Wang, K. S. Anderson, W. L. Jorgensen.
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5. *Search for Non-nucleoside Inhibitors of HIV-1 Reverse Transcriptase using Chemical Similarity, Molecular Docking, and MM-GB/SA Scoring.*
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6. *Human Cytomegalovirus Protease: Why Is the Dimer Required for Catalytic Activity?*
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7. *Elucidation of Fatty Acid Amide Hydrolase Inhibition by Potent □-Ketoheterocycle Derivatives from Monte Carlo Simulations.*
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9. *Effects of Arg90 Neutralization on the Enzyme-Catalyzed Rearrangement of Chorismate to Prephenate.*
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   J. Chem. Theory Comput. 1, 617-625 (2005).
10. *Discovery of a Potent, Selective, and Efficacious Class of Reversible □-Ketoheterocycle Inhibitors of Fatty Acid Amide Hydrolase Effective as Analgesics.*

D. L. Boger, H. Miyauchi, W. Du, C. Hardouin, R. A. Fecik, H. Cheng, I. Hwang, M. P. Hedrick, D. Leung, O. Acevedo, **C. R. W. Guimarães**, W. L. Jorgensen, B. F. Cravatt.
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11. *A Molecular Dynamics Study on Liquid 1-Octanol. Part 3. Evaluating Relative Octanol/Water Partition Coefficients of Thrombin Inhibitors via Free-Energy Perturbations.*
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13. *On the Application of Simple Explicit Water Models to the Simulations of Biomolecules.*
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15. *Synthetic and Theoretical Studies on the Reduction of Electron Withdrawing Group Conjugated Olefins Using the Hantzsch 1,4-dihydropyridine Ester.*
S. J. Garden, **C. R. W. Guimarães**, C. A. F. Oliveira, M. B. Correa, A. C. Pinto, R. Bicca de Alencastro.
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C. A. F. Oliveira, **C. R. W. Guimarães**, G. Barreiro, R. Bicca de Alencastro.
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17. *Contributions of Conformational Compression and Preferential Transition State Stabilization to the Rate Enhancement by Chorismate Mutase.*
C. R. W. Guimarães, M. P. Repasky, J. Chandrasekhar, J. Tirado-Rives, W. L. Jorgensen.
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M. P. Repasky, **C. R. W. Guimarães**, J. Chandrasekhar, J. Tirado-Rives, W. L. Jorgensen.
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21. *Metodologias em Modelagem Molecular de Biomoléculas.*
R. Bicca de Alencastro, M.G. Albuquerque, O. A. Santos Filho, **C. R. W. Guimarães**, G. Barreiro, N. C. Romeiro, R. C. A. Martins, C. A. F. Oliveira.
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