



Jayne Kapur, Ph.D.

Technical Specialist

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Jayne Kapur, Ph.D. joined Marshall Gerstein's Chemical Sciences Practice in 2021 as a Technical Specialist assisting in preparing and prosecuting patents for non-profits institutions, research laboratories, and universities. Jayne has over two decades of experience in chemical arts and has worked in academia, government, and industry prior to the legal field. Jayne was drawn to studying chemistry to better understand how chemical compounds are fundamental to all things living and nonliving. During her time in industry, she was interested in the strategic decisions that were made from an intellectual property perspective and how these decisions were instrumental along with research and science in driving pipeline development. Outside of prosecuting patents for the firm's chemical sciences clients, Jayne enjoys hiking and horse riding with her family, painting and visiting museums, and cooking.

Practices

- Patent Prosecution

Industries

- Chemical Sciences

Background and Credentials

Jayne was previously an Advisor and Scientific & Technical Advisor within the Intellectual Property practice of two law firms. Following her postdoctoral fellowship at the University of Notre Dame, Jayne joined the Computer Aided Drug Design (CADD) group as a Research Scientist at Bristol Myers Squibb. Jayne worked with a talented multi-disciplined team to develop drugs for HIV, Hepatitis C, and B, and neurological targets. These projects embraced various computational disciplines including genomics, small molecule library design, structure and ligand based design, along with factors that address delivery and metabolism of potentially therapeutic molecules. Following her time at Bristol Myers Squibb, Jayne was a Research Scientist in the Computational Chemistry Group, Physical & Chemical Properties Division at the National Institute of Standards and Technology (NIST). At NIST, her research focused on understanding the chemical and physical properties required for the molecular recognition of biologically active compounds by target proteins.

Education

- University of London (LLB candidate)

- University of Wales (Ph.D.)
 - Organic and Computational Chemistry
- University of Notre Dame
 - Walter Cancer Center Postdoctoral Fellow
- University of Wales (B.Sc., *with honors*)
 - Biomedical and Biomolecular Chemistry

Publications

- Morley JO, **Kapur, AJO**, Charlton MH. "Kinetic Studies on the Reactions of 3-Isothiazolones with 2-Methylpropanethiol", International Journal of Chemical Kinetics 2007; 254-260
- Langley DR, Walsh AW, Baldick CJ, Eggers BJ, Rose RE, Levine SM, **Kapur AJ**, Colonno RJ, Tenney DJ. "Inhibition of hepatitis B virus polymerase by entecavir", J.Virol. 2007 Apr.; 81(8): 3992-4001.
- John O. Morley, **A Jayne Oliver Kapur** and Michael H. Charlton Structure activity relationships in 3isothiazolones (Journal of Organic and bio-organic Chemistry 2005, 3, 3713 - 3719)
- Tenney DJ, Langley DR, **Oliver AJ**, et al. Hepatitis B virus resistance to Entecavir involves novel changes in the viral polymerase. Hepatology. 2004; 40:245A
- Pingyu Ding, Marvin J. Miller*, Yi Chen, Paul Helquist, **A. Jayne Oliver** and Olaf Wiest

[See a full listing of Jayne's publications.](#)

Community and Professional Involvement

- American Chemical Society
- Royal Society of Chemistry

Patents

Jayne holds two patents involving Hepatitis C virus inhibitors:

- US 8,809,548
- US 7,906,655

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- Morley JO, **Kapur, AJO**, Charlton MH. "Kinetic Studies on the Reactions of 3-Isothiazolones with 2-Methylpropanethiol", International Journal of Chemical Kinetics 2007; 254-260
- Langley DR, Walsh AW, Baldick CJ, Eggers BJ, Rose RE, Levine SM, **Kapur AJ**, Colonno RJ, Tenney DJ. "Inhibition of hepatitis B virus polymerase by entecavir", J.Virol. 2007 Apr.; 81(8): 3992-4001.
- John O. Morley, **A Jayne Oliver Kapur** and Michael H. Charlton Structure activity relationships in 3isothiazolones (Journal of Organic and bio-organic Chemistry 2005, 3, 3713 - 3719)
- Tenney DJ, Langley DR, **Oliver AJ**, et al. Hepatitis B virus resistance to Entecavir involves novel changes in the viral polymerase. Hepatology. 2004; 40:245A
- Pingyu Ding, Marvin J. Miller*, Yi Chen, Paul Helquist, **A. Jayne Oliver** and Olaf Wiest

- Syntheses of Conformationally Constricted Molecules as Potential NAALADase/PSMA Inhibitors (Organic Lett. 6 (11), 1805 -1808, 2004)
- **A. Jayne Oliver**, Olaf G.Wiest, Marvin J. Miller and Martin Tenniswood. "Conformational and SAR analysis of NAALADase and PSMA inhibitors." Bioinorganic and Medicinal Chemistry 11 (2003) 4455-4461
- **A. Jayne Oliver**, John O. Morley, Michael H. Charlton, W. Richard Bowen, Nidal Hilal, Robert W. Lovitt and Peter M. Williams. "Atomic force microscopy study of the effect of 4,5-benzo-3-isothiazolone on the cell surface of Escherichia coli." Submitted to J.Biophys.
- John O. Morley, **A. Jayne Oliver** and Michael H. Charlton. "Theoretical studies on the biocidal activity of 5chloro-3isothiazolone." J.Mol. Struct.(Theochem.),429(1998) 103-110.
- David R Langley and **A. Jayne Oliver Kapur**. Molecular Dynamic studies on the HIV-I Integrase core dimer, implications for DNA binding and mechanism. (In preparation)
- **A. Jayne Oliver Kapur** and Anne M. Chaka. Government White paper, Role of Molecular Recognition in Pharmaceutical Industry and Drug Design.