



FOR IMMEDIATE RELEASE

Catylux and Aspira Scientific Announce Launch of the “New Substituent of the Future”

A Versatile New Substituent for Optimizing the Structures of Drugs and Crop Protection Agents is Now Available

SAN FRANCISCO, Calif., August 11, 2014 /PRNewswire/ -- Catylux, Inc. (Burbank, California) and Aspira Scientific (Milpitas, CA) announce today the launch of the “New Substituent of the Future” for the discovery and development of novel bioactive compounds. Supported by technology developed by Prof. John F. Hartwig at University of California Berkeley, Catylux and Aspira are commercializing new building blocks and chemistry for the broad introduction of the fluorine-containing functional group pentafluoroethyl (C₂F₅)—the New Substituent of the Future.

Developing improved biologically active molecules has benefited from the use of substituents that are chemically stable, resistant to metabolism, and combine lipophilicity with polarity to modulate receptor binding and bioavailability. Fluorinated functional groups, in particular, have been used to accomplish these objectives, and the benefits of fluorine are well-appreciated by medicinal chemists and crop protection scientists. It is estimated that more than 25% of small-molecule drugs currently under development contain fluorine.

In launching pentafluoroethyl as the New Substituent of the Future, Catylux and Aspira are making available the C₂F₅ substituent to provide benefits that improve the performance of prospective drugs and crop protection agents: 1) size intermediate between trifluoromethyl and t-butyl; 2) combination of lipophilicity and electronegativity which can improve bioavailability; and 3) high metabolic and chemical stability.

Most importantly, pentafluoroethyl brings the additional important benefit of broad synthetic access, allowing incorporation into almost any position of an aryl or heteroaryl ring, or attached to almost any carbon-carbon double bond. “Incorporating the C₂F₅ substituent offers the potential for creating patentable new compounds with superior biological activity,” stated Dr. David Rozzell, CEO of Catylux. “Furthermore, the methods developed by Catylux for introducing the pentafluoroethyl group promise to be scalable, efficient, and cost-effective.”

To help chemists evaluate pentafluoroethyl as the New Substituent of the Future, Catylux and Aspira are launching a new product line focused on C₂F₅-containing compounds called Penta-F-Blocks™. Dr. Rozzell explained, “All Penta-F-Blocks are pre-functionalized with the C₂F₅ group and contain an additional ‘chemical handle’ allowing the straightforward incorporation of the pentafluoroethyl fragment into the synthetic route of a more complex molecule.”

Sales will be handled through the recently-announced joint venture between Catylix and Aspira Scientific. Dr. John Chan of Aspira commented, "We are excited to work with Catylix to bring the New Substituent of the Future into the mainstream of modern synthetic chemistry. Our production and distribution will make pentafluoroethyl-substituted building blocks available to research and process chemists world-wide."

In addition to offering novel Penta-F-Blocks™, Catylix and Aspira also provide synthesis of compounds containing the C2F5 functional group on a custom basis.

Dr. David Rozzell, CEO of Catylix and Dr. John Chan, CEO of Aspira Scientific will be available for consultations and meetings during the 2014 ACS Meeting and Exhibition in San Francisco at Booth 1136 on August 11-12.

About Aspira Scientific

Aspira Scientific is a science-centric enterprise dedicated to empowering scientists reach their aspirations in chemical R&D. We achieve this goal through reducing the cost of basic and applied research by offering research products with superior value in terms of price and quality. By leveraging a truly global innovation ecosystem, we also make available a broader set of next-generation enabling tools for chemical synthesis. For organizations with developmental programs, we provide custom production services via "Collaborate Locally. Commercialize Globally.™" model to afford exceptional value in terms of innovation, quality and IP assurance, and cost-efficiency. For more information on realizing your scientific aspirations now and tomorrow, please visit www.aspirasci.com.

About Catylix, Inc.

Catylix, Inc. is an early-stage company specializing in the development and commercialization of new fluorination chemistry and novel products for the incorporation of fluorine-containing functionality. For more information about Catylix, please visit <http://www.catylix.com>.

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