

Leo Fernandez and Doug Lappi in their facilities in San Diego, California

ATS Joins Forces with Cytometry Research

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ATS develops products for targeting cells based on what is presented on their cell surfaces. Cytometry Research provides the capabilities to monitor product successes. One example is the quality control of ATS antibodies for activity that is most important – binding to live cells. In addition, neuronal stem cells are important research tools and can be identified easily and effectively through FACS analysis.

Clinical trial applications are an important part of the GLP/GMP services provided by Cytometry Research. This is another of the considerations that led to the two companies joining forces. ATS is developing one of its targeting reagents, Substance P-Saporin (SP-SAP), as a therapeutic for the treatment of chronic pain. One of the most important assays under development is the binding of SP-SAP to the target SP receptor-expressing cells which can then be seen through FACS analysis. SP-SAP is added to a cell population, the cells are fixed, and then fluorescent-labeled anti-Saporin is used to see fluorescent-labeled cells. The demonstration of the presence of both active SP and immunoreactive SAP is necessary. The results show the integrity of the molecule, a vital step in pharmaceutical development.

It's clear that the two companies are strengthened by combining resources. But the scientific community benefits as well. High-quality targeting reagents and GMP/GLP services provide important tools for research and pharmaceutical development.

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Jennifer Martin wins "ATS Abstract of the Year Award"

Jennifer L. Martin, a graduate student at the University of Arizona, won the annual award presented by Advanced Targeting Systems to the first author of the best poster using an ATS product. Ms. Martin's poster, produced under the supervision of Dr. Robert S. Sloviter, demonstrated the effect of the elimination of SP receptorexpressing interneurons in the rat hippocampus. The scientists used SSP-SAP (Cat# IT-11), the conjugate of saporin with the Sar⁹ analog of substance P (SP), for the elimination of these neurons. They had previously attempted use of SP-SAP (Cat# IT-07), which has given excellent results for elimination of SPR+ neurons when delivered intrathecally into spinal fluid. However, it is known that the half-life

of the SP moiety is quite brief upon entry into tissue. Martin and Sloviter wanted to inject directly into tissue, but found that SP-SAP gave very little effect, presumably due to the lability of SP. They switched to the more stable SSP-SAP ("stable" SP-SAP) and found extensive and specific elimination of SPR+ neurons in the region of injection. Epileptic pathophysiology was observed in the area of cell loss, indicating that a very focal loss of neurons is sufficient for replicating epileptic disinhibition and hyperexcitability.

Congratulations to this team for an excellent poster!



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