



## Ligand Research Published in Journal of Medicinal Chemistry: LGD-2941 Shows Promise in Treating Muscle and Bone Loss

SAN DIEGO, Oct 10, 2007 (BUSINESS WIRE) -- Ligand Pharmaceuticals Incorporated (NASDAQ:LGND) (the "Company" or "Ligand") today announced that an article authored by a team of Ligand scientists will appear in the October 18th issue of the Journal of Medicinal Chemistry and is also highlighted in a recent press release from the American Chemical Society (ACS).

The article, entitled "Substituted 6-(1-Pyrrolidine)quinolin-2(1H)-ones as Novel Selective Androgen Receptor Modulators (SARMs)" describes the development of a nonsteroidal compound, LGD-2941 that shows promise as a new treatment for loss of muscle mass, bone tissue and other problems linked to aging.

According to the announcement by the ACS, "Ligand Scientist, Arjan van Oeveren and colleagues point out that the potential side effects of testosterone (used as) a steroid medication, limit its use to older men with low testosterone levels. The new study describes a nonsteroidal compound that attaches to testosterone receptors in cells and triggers the same desired effects as actual testosterone, in tests in laboratory animals. In comparison to other testosterone replacement treatments, the compound showed similar improvement in muscle mass and strength while having little effect on the prostate, the researchers say. It also significantly improved bone density and strength in rats."

Dr. Martin Meglasson, Ligand's Vice President of Discovery Research, commented, "Publication of this research paper on LGD-2941 in the JMC and the accompanying comments by the ACS reflect the potential for Ligand's SARMs to become improved treatment options with better safety and the convenience of oral dosing for patients with osteoporosis or frailty. LGD-2941, which is licensed to TAP Pharmaceutical Products and Ligand's second generation SARM LGD-3303 have demonstrated in animal studies an ability to stimulate the growth of new bone. This anabolic effect could be of particular benefit in the many osteoporosis patients who have already lost significant bone density and strength before they are diagnosed or who have had an inadequate response to the current standard treatment using bisphosphonate drugs."

### SARM Program

Ligand has conducted extensive drug research with SARMs. In its research collaboration with TAP Pharmaceutical Products, Ligand discovered the SARM LGD-2941, which TAP is developing in a Phase I clinical trial. Ligand has rights to several SARM molecules, including LGD-3303. Ligand is formulating and optimizing a library of SARM compounds to potentially advance to clinical development.

### About Ligand Pharmaceuticals

Ligand discovers and develops new drugs that address critical unmet medical needs of patients in the areas of thrombocytopenia, hepatitis C, cancer, hormone-related diseases, osteoporosis and inflammatory diseases. Ligand's proprietary drug discovery and development programs are based on its leadership position in gene transcription technology, primarily related to intracellular receptors.

### Caution Regarding Forward-Looking Statements

This news release contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended that involve risks and uncertainties and reflect Ligand's judgment as of the date of this release. These include statements regarding data analysis and evaluation of LGD-2941 and other SARMs, utility or potential benefits to patients, plans for continued development and further studies of LGD-2941 or other SARMs, e.g., for the treatment of diseases including low testosterone (hypogonadism), sexual dysfunction, osteoporosis, frailty and cancer cachexia. Actual events or results may differ from our expectations. For example, there can be no assurance that other trials or evaluations of LGD-2941 or other SARMs will be favorable or that they will confirm results of previous studies, that data evaluation will be completed or demonstrate any hypothesis or endpoint, that LGD-2941 or other SARMs will provide utility or benefits to certain patients, that any presentations will be favorably received, that LGD-2941 or other SARMs will be useful as a single agent or in combination with other drugs, that marketing applications will be filed or, if filed, approved, or that clinical or commercial development of these drugs will be initiated, completed or successful or that our rights to LGD-2941 and other SARMs will not be successfully challenged. Our stock price may suffer as a result of the failure of any trials to be completed or meet their endpoints or if any actual events differ from our expectations. Additional information concerning these and other risk factors affecting Ligand can be found in prior press releases as well as in public periodic filings with the Securities and Exchange Commission, available via [www.ligand.com](http://www.ligand.com). Ligand disclaims any intent or obligation to update these forward-looking statements beyond the date of this

release.

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