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CollaGenex Pharmaceuticals Announces Highly Positive Results of Phase 2 Dose-Finding Trial of Col-118 for the Treatment of Erythema

Newtown, PA, August 23, 2007 – CollaGenex Pharmaceuticals, Inc. (NASDAQ: CGPI) today announced results of a Phase 2 dose-finding study designed to evaluate the safety and efficacy of Col-118 for the treatment of erythema. Erythema is a bright skin redness associated with erythematous rosacea and other dermatological conditions. Col-118 is a topical formulation that incorporates a compound believed to reduce erythema by constricting enlarged blood vessels in facial tissue. The Phase 2 clinical study demonstrated a highly statistically significant dose-response relationship of Col-118 in the reduction of erythema, with a side effect profile similar to the vehicle control.

The double-blinded, placebo-controlled, Phase 2 study enrolled 110 patients at 6 centers. The study had four arms, and patients were treated with one of three concentrations of Col-118 or a vehicle control. The treatment duration was 28 days, with a 28-day follow up. Patients applied Col-118 or vehicle daily throughout the treatment period. On Days 1, 14 and 28, each patient applied Col-118 once in the investigator's office and was assessed at set intervals during the day using various scores, including Clinical Erythema Assessment.

The primary clinical endpoint of this study was a reduction in average Clinical Erythema Assessment (CEA) score across all visits compared to baseline. The CEA is a five-point scale ranging from 0 to 4, with grade 0 described as clear skin with no signs of erythema and grade 4 described as severe erythema characterized by a fiery redness. At baseline, all patients had moderate to severe erythema and scored either grade 3 or 4.

The study successfully demonstrated a strong dose response relationship and achieved its primary endpoint. The average reductions in CEA in patients who had received the mid and the high doses of Col-118 were substantially greater across all visits than that of patients receiving the vehicle control. At the Day 28 visit, the average reduction in CEA in patients who had received the high dose was 1.6 at peak efficacy compared to an average peak reduction in the vehicle of 0.7, with a p-value of <0.001. At peak efficacy on Day 28, the average reduction in CEA in patients who had received the mid dose was 1.3 (p<0.05), and the average reduction in CEA in patients who had received the low dose was 1.0 (p=0.2).

Klaus Theobald, M.D., Ph.D., chief medical officer of CollaGenex, said, "We are extremely pleased with the outcome of our Phase 2 study. We achieved our primary endpoint and also observed a strong dose response relationship, with a very high degree of statistical significance. The onset of action was rapid, and beneficial effects were maintained for at least six hours. At peak efficacy, 38% of patients in the high dose group had CEA scores of 0 or 1, indicating that they were clear or near clear of erythema. Clinically, these results are very meaningful and, with this data in hand, we expect to begin our Phase 3 testing in the first quarter of 2008."

James Leyden, M.D., Professor Emeritus, University of Pennsylvania, and lead investigator of the study, said, "Col-118 appears to be the first effective treatment for the redness (flushing and blushing) associated with rosacea. Currently, there are no effective treatments for patients who suffer from this aspect of rosacea. If future studies confirm these results, this treatment should be approved by FDA. Once approved, Col-118 will offer an important new treatment to millions of rosacea patients."

Colin Stewart, president and chief executive officer of CollaGenex, stated, "The results of this trial provide clear evidence that Col-118 offers significant clinical benefits in the treatment of erythema with an excellent side effect profile. If our clinical development program is successful and Col-118 is ultimately approved by the FDA, it will be the first compound specifically approved for the treatment of erythema, a market opportunity that we estimate to be in the order of \$300 million."

About CollaGenex

CollaGenex Pharmaceuticals, Inc. is a specialty pharmaceutical company currently focused on developing and marketing proprietary, innovative medical therapies to the dermatology market. In July 2006, CollaGenex launched Oracea(R), the first FDA-approved systemic product for the treatment of rosacea. CollaGenex's professional dermatology sales force also markets Pandel(R), a prescription topical corticosteroid licensed from Altana, Inc., Alcortin(R) (1% iodoquinol and 2% hydrocortisone), a prescription topical antifungal steroid combination, and Novacort(R) (2% hydrocortisone acetate and 1% pramoxine HCl), a prescription topical steroid and anesthetic. Alcortin and Novacort are marketed by the Company under a Promotion and Cooperation agreement with Primus Pharmaceuticals, Inc. CollaGenex is conducting two Phase II dose-finding studies to evaluate its second dermatology candidate, incyclinide, for the treatment of acne and rosacea, respectively. CollaGenex recently acquired the rights to develop and commercialize becocalcidiol, a patented Vitamin D analogue developed by QuatRx Pharmaceuticals Company that is currently in Phase II clinical trials for the topical treatment of mild to moderate psoriasis.

Research has shown that compounds can be created by chemically modifying certain tetracyclines and that these new compounds have properties that may make them effective in treating diseases involving inflammation and/or destruction of the body's connective tissues. CollaGenex is evaluating various chemically modified tetracyclines (so called "IMPACS"(TM) compounds because they are Inhibitors of Multiple Proteases And CytokineS) to assess whether they are safe and effective in these applications. The Company has a pipeline of innovative product candidates with possible applications in dermatology and other disease states. In

addition, CollaGenex has acquired the SansRosa(R) technology, which consists of a class of compounds that have shown promise in reducing the redness associated with rosacea, and the Restoraderm(R) technology, a unique, proprietary dermal drug delivery system. CollaGenex plans to leverage these platforms to develop a range of topical dermatological products with enhanced pharmacologic and cosmetic properties.

To receive additional information on the Company, please visit our Website at www.collagenex.com, which does not form part of this press release.

Forward Looking Statements

Statements in this press release regarding management's future expectations, beliefs, intentions, goals, strategies, plans or prospects, including statements relating to the Company's revenue, cost of goods sold, net loss and expenses and future cash position, including the remainder of fiscal year 2007, and its future research and development efforts, including the Company's clinical and development programs relating to becocalcidiol, incyclinide and COL-118 and its dermatology franchise, product pipeline and intellectual, property, may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by terminology such as "anticipate," "believe," "could," "could increase the likelihood," "estimate," "expect," "intend," "is planned," "may," "should," "will," "will enable," "would be expected," "look forward," "may provide," "would" or similar terms, variations of such terms or the negative of those terms. Such forward-looking statements involve known and unknown risks, uncertainties and other factors including those risks, uncertainties and factors referred to in the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2007 filed with the Securities and Exchange Commission under the section "Risk Factors," as well as other documents that may be filed by CollaGenex from time to time with the Securities and Exchange Commission. As a result of such risks, uncertainties and factors, the Company's actual results may differ materially from any future results, performance or achievements discussed in or implied by the forward-looking statements contained herein. CollaGenex is providing the information in this press release as of this date and assumes no obligations to update the information included in this press release or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Restoraderm(R), SansRosa (R) and Oracea(R) are registered trademarks and IMPACS(TM) is a trademark of CollaGenex Pharmaceuticals, Inc.

Novacort(R) and Alcantin(R) are trademarks of Primus Pharmaceuticals, Inc.

Pandel(R) is a trademark of Taisho Pharmaceuticals.

Atridox(R), Atrisorb(R) and Atrisorb-D(R) are registered trademarks of Tolmar, Inc.

All other trade names, trademarks or service marks are the property of their respective owners and are not the property of CollaGenex Pharmaceuticals, Inc. or any of our subsidiaries.

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