CLINICAL TRIAL REVIEW

Clinical Trial Review is a JDD department designed to provide physicians with information on drugs and devices undergoing clinical testing. It is our goal to inform the reader of the status of select drug and device studies relevant to the practice of dermatology before this information is available through standard channels. To participate in or learn more about these and additional trials, visit www.clinicaltrials.gov.

PSORIASIS

Serum Lipid Levels and Other Biomarkers of Cardiovascular Disease in Patients With Psoriasis

Psoriasis patients are known to be at increased risk for heart disease. This may be due to the increased prevalence of cardiovascular disease risk factors in this population, including high blood pressure, diabetes, obesity, and high cholesterol. Although cholesterol levels are known to be altered in psoriasis, most studies have used standard lipid profiles to measure cholesterol. These tests indirectly measure low-density lipoprotein (LDL), which is bad cholesterol, and they become less accurate when triglyceride levels are high, as often seen in individuals with psoriasis.

This case-control study uses a more specific and detailed cholesterol test to measure serum lipid levels in psoriasis patients, allowing for a more accurate determination of LDL and better assessment of the lipid-contribution to cardiovascular risk. It also measures other markers of inflammation that may contribute to cardiovascular disease. Participants will be selected from the Dermatology Clinic at George Washington University Medical Faculty Associates.

Condition	Study Type
Psoriasis	Observational
Sponsor: George Washington University **Study ID Numbers:** IRB#100940 **ClinicalTrials.gov Identifier:** NCT01019200	

PSORIASIS

A First in Human Study to Evaluate the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of an Intravenous Dose of GSK2831781 in Healthy Subjects and Patients With Plaque Psoriasis

This study is a phase 1, randomised, double blind (sponsor unblinded), placebo-controlled, single-ascending dose study of GSK2831781 administered intravenously. GSK2831781 is a humanized cell-mediated cytotoxicity effector-enhanced monoclonal afucosylated antibody that is specific to the lymphocyte activation gene-3 (LAG-3) protein.

This is the first administration of GSK2831781 in humans, and the study will evaluate in 2 parts the safety, tolerability, pharmacokinetics, pharmacodynamics, and immunogenicity of single intravenous (IV) doses of GSK2831781 administered to 31 healthy subjects previously vaccinated with Bacillus Calmette Guérin (BCG) (delayed-type hypersensitivity [DTH] cohorts) and 32 patients with plaque psoriasis.

The inclusion of both DTH and psoriasis subjects to explore the mechanism in biopsies and clinical response endpoints in these populations, as well as to investigate systemic biomarkers, will provide useful information prior to conducting studies in other immune-inflammatory diseases that involve more invasive tissue biopsies. Measuring the pharmacology of GSK2831781 using the depletion of LAG-3+ T-cells in skin biopsies from tuberculin purified protein derivative skin challenge and lesional skin biopsies from patients with psoriasis will be helpful in understanding the dose response relationship.

Condition	Intervention
Psoriasis	Biological: GSK2831781; Biological: Placebo
Sponsor: GlaxoSmithKline **Study ID Numbers:** 200630 **ClinicalTrials.gov Identifier:** NCT02195349	

MELANOMA

Immunotherapy Study for Patients With Stage IV Melanoma

According to statistics of the American Cancer Society, an estimated 73,800 individuals will be diagnosed with melanoma and 9,900 will die of the disease in 2015 in the Unites States despite current therapy. The purpose of this study is to examine the effectiveness of immune checkpoint inhibitors (drugs called ipilimumab, nivolumab, or pembrolizumab), either given alone or in combination with the experimental immunotherapy drug, dorgenmeltucel-L, for melanoma. The hypothesis is that this form of combinatorial immunotherapy will result in tumor stabilization or shrinkage, and significant prolongation of progression-free, disease-free, or overall survival, compared with the use of immune checkpoint inhibitors alone.

The expression of the murine (1,3) galactosyltransferase [alpha(1,3)GT] gene results in the cell surface expression of (1,3) galactosyl-epitopes (alpha-gal) on membrane glycoproteins and glycolipids. These epitopes are the major target of the hyperacute rejection response that occurs when organs are transplanted from non-primate donor species into man. Human hosts often have pre-existing anti-alpha-gal antibodies that

bind alpha-gal epitopes and lead to rapid activation of complement and cell lysis. The pre-existing anti-alpha-gal antibodies found in most individuals are thought to be due to exposure to alpha-gal epitopes that are naturally expressed on normal gut flora, leading to chronic immunological stimulation.

In addition to the immune checkpoint therapy, half of the patients will also receive dorgenmeltucel-L. Endpoints of the study include safety assessments, efficacy, and immunological responses.

Condition	Intervention
Melanoma	HyperAcute®-Melanoma immunotherapy; ipilimumab; pembrolizumab; nivolumab.
Sponsor: NewLink Genetics Corporation **Study ID Numbers:** NLG0304, 1303-1217 **ClinicalTrials.gov Identifier:** NCT02054520	

MELANOMA

Study of Tumor Tissue Samples From Patients With Stage I, Stage II, or Stage III Malignant Melanoma

The objective of this study is to determine the genetic profile of primary melanomas with and without synchronous regional nodal involvement by examining for (1) activating mutations B-Raf and N-Ras associated with melanoma development, and (2) allelic imbalances across the genome. This study will compare the genetic profile of primary melanomas from patients with and without lymph node involvement. It will also determine the combinations of genetic lesions that correlate with nodal metastasis by adopting a statistical machine learning approach to build a lesion-based classifier for nodal metastasis.

Tumor tissue samples are collected from patients with stage I, stage II, or stage III malignant melanoma. Laser capture microdissection is performed on the archived tissue samples to isolate melanoma cells. DNA is then purified from the samples and amplified using polymerase chain reaction (PCR). Matrix-assisted laser desorption/ionization (MALDI)-time of flight mass spectrometry technology is used to detect mutations of B-Raf and N-Ras. Single nucleotide polymorphism arrays are also performed.

Condition	Intervention
Melanoma	Gene expression analysis; polymerase chain reaction; polymorphism analysis.
Sponsor: Case Comprehensive Cancer Center **Collaborator:** National Cancer Institute (NCI) **Study ID Numbers:** NLG0304, 1303-1217 **ClinicalTrials.gov Identifier:** NCT00991991	

VITILIGO

Assessing the Efficacy of Needling With or Without Corticosteroids in the Repigmentation of Vitiligo

This study is the first randomized control trial (RCT) of needling in vitiligo that uses an objective measure to quantify results. It has the potential to establish needling as a novel, effective treatment for vitiligo, and to evaluate the use of confocal microscopy (CFM) for monitoring response to treatment.

Vitiligo is an autoimmune cutaneous disorder that destroys melanocytes leading to depigmented areas of skin. In the United States, vitiligo affects 1% of patients, causing not only changes in the color of skin but also significant cosmetic concerns and quality of life issues. Current treatment modalities, which include topical corticosteroids, intralesional corticosteroids, phototherapy, and systemic immunosuppression, are variably effective in inducing repigmentation. Unfortunately, some cases of vitiligo are refractory to treatment. There is a need for new, effective modalities to treat patients with otherwise refractory vitiligo.

Needling is an office-based procedure that theoretically transposes healthy, pigmented skin cells to depigmented areas using a needle in vitiligo patients. Two preliminary studies of needling as a novel treatment for vitiligo had promising results but were limited by small sample size and subjective results.

The proposed RCT will further investigate the use of needling to treat vitiligo. It differs from the previous studies in that it seeks to identify the cause of clinical benefit by comparing needling alone to needling with corticosteroid, examines a larger number of patients, and quantifies improvement using CFM.

Condition	Intervention
Vitiligo	Needling procedure, triamcinolone
Sponsor: Rutgers, the State University of New Jersey **Study ID Numbers:** Pro2013003377 **ClinicalTrials.gov Identifier:** NCT02191748	

MELASMA

A Pilot Study Testing Salicylic Acid Peels Vs Glycolic Acid Peels for the Treatment of Melasma

The purpose of this study is to determine the safety and effectiveness of glycolic acid chemical peels compared with salicylic acid chemical peels for the treatment of melasma. Participants in this study will be patients who are clinically diagnosed with at least a 2 x 2 cm patch of melasma on each side of their face (forehead or cheek). At baseline and at weeks 4, 8, and 12, one half of the subject's face will be randomly selected to receive 4 treatments of 30% glycolic acid peels, and the other half of the face will receive 4 treatments of 30% salicylic acid peels. The follow-up visit will be at week 16. The change in best overall cosmetic appearance (right side vs left side) will be rated by a blinded dermatologist from baseline to week 16.

Condition	Intervention
Melanosis	Salicylic Acid Peels and Glycolic Acid Peels
Sponsor: Northwestern University **Study ID Numbers:** STU84250 **ClinicalTrials.gov Identifier:** NCT01976286	