



Children's Hospital Boston

The Hospital for Children

Division of Immunology
1 Blackfan Circle
Boston, MA 02115
(617) 919-2484

Project Inventory

Title: ADVN Biomarker Registry Study

Principal Investigator: Lynda Schneider, MD

Researchers Involved: Irene Borrás-Coughlin, CCRC - William Sheehan, MD - John Lee, MD

Abstract: This protocol describes the development of the Atopic Dermatitis and Vaccinia Immunization Network (ADVNI) Biomarker Registry Study. The proposed Registry is a database with a minimum of 1,000 subjects who have voluntarily agreed to provide medical and demographic information about themselves and their health status. These data will be collected through the end of the funding period and will be used to identify potential subjects for future studies designed to improve scientific understanding of the increased risk of complications after exposure to the smallpox vaccine for people with atopic dermatitis (AD). In addition, enrolled subjects will be asked to provide a blood sample for evaluation of biomarkers, and permission for blood sample storage to support future analyses.

Funding Sources: NIH

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Project Inventory

Title: An investigation of the safety and efficacy of Elidel 1% cream in atopic disease modification, assessed in a 3-year randomized double-blind vehicle controlled phase to evaluate effects on atopic dermatitis in infants, and a 2-3 year open-label phase to evaluate the effect of early intervention versus delayed intervention with Elidel on the incidence of asthma in children

Principal Investigator: Lynda C. Schneider, MD

Researchers Involved: Wanda Phipatanakul, MD - Karol Timmons, CPNP - William Sheehan, MD - Irene Borrás Coughlin, CCRC

Abstract:

Summary of Main Study: The current protocol is testing the hypothesis that Elidel® 1% cream (1% pimecrolimus cream) has atopic disease-modifying capabilities. Due to the natural course of atopic disease, an investigation of atopic disease modification will entail an assessment of effects on atopic dermatitis (AD) and on asthma, the two principal clinical manifestations of atopy which are typically seen at different ages: eczema in early infancy and asthma some 5-6 years later.

This is a randomized, double-blind, vehicle-controlled, multi-center, parallel-group study. Infants between the ages of 3 to 18 months with atopic dermatitis (AD) and a family history of atopic disease were enrolled between January 2004 and December 2004. The study has two phases; during phase one, which all subjects are currently participating in, subjects are given either Elidel® 1% cream or a placebo cream. In the second phase of the study all subjects who qualify will receive open-label Elidel® 1% cream for up to 33 months. Subjects will participate until shortly after their 6th birthdays.

We also hope to develop a better understanding of AD through investigation of the association of filaggrin mutations with different phenotypes of AD, other cutaneous features associated with AD, and systemic allergic manifestations. We also would like to evaluate how subjects with AD (and/or with AD who subsequently develop asthma) with and without filaggrin mutations respond to pimecrolimus cream 1%.

In order to gain a better understanding of additional factors that may contribute to the development of AD and asthma, information about the patient's breastfeeding history and the patient's family's history of atopy will be collected.

Summary of Substudy: Allergic diseases such as atopic dermatitis, asthma, and allergic rhinitis are among the most common chronic diseases in the developed world. It is also well known that

childhood atopic diseases are associated with allergy to one or more indoor and outdoor allergens, and that indoor allergens, particularly pets and pests appear to be highly important in disease development. However, despite much study, the full role of various risk factors, i.e. environmental allergen exposure, on disease development is still unclear, and it is thought that multiple environmental, genetic, and medical therapeutic factors may determine whether an individual goes on to develop an allergic disease. This epidemiological substudy will take the opportunity of evaluating risk factors for developing asthma and allergic diseases in a cohort of patients which are prospectively followed the main study.

Funding Sources: Novartis Pharmaceuticals

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Project Inventory

Title: APPLES: A Prospective Pediatric Longitudinal Evaluation to Assess the Long-Term Safety of Tacrolimus Ointment for the Treatment of Atopic Dermatitis

Principal Investigator: Lynda C. Schneider, MD

Researchers Involved: Karol Timmons, CPNP - Irene Borrás Coughlin, CCRC

Abstract: Over 4,500 pediatric subjects aged 2 to 16 years have been exposed to tacrolimus ointment in clinical studies, including 400 children followed for more than 3 years. In large open-label study of 0.1% tacrolimus ointment including over 4,000 children with AD, the adverse event profile was consistent with that of children with atopic allergies and was comparable to that reported in the package insert. Minimal systemic absorption of tacrolimus has been observed following topical application.

This is a phase 4, prospective, multinational, observational cohort study to assess the long-term safety of tacrolimus ointment 0.03% or 0.1% in the treatment of subjects with atopic dermatitis under actual use conditions, including the risk of developing cutaneous or systemic malignancies. Each subject will be followed for 10 years in this study.

Funding Sources: Astellas Pharma Us, Inc. (Successor in interest to Fujisawa Healthcare, Inc.)

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Project Inventory

Title: Immune Response to Varicella Vaccination in Subjects with Atopic Dermatitis Compared to Nonatopic Controls

Principal Investigator: Lynda Schneider, MD

Researchers Involved: Irene Borrás-Coughlin, CCRC - William Sheehan, MD - John Lee, MD

Abstract: Children with eczema (atopic dermatitis/AD) are more vulnerable to viral skin infections such as severe cold sores (herpes simplex virus [HSV]) and vaccinia (smallpox). Eczema patients given the smallpox vaccine may have a severe life-threatening infection called eczema vaccinatum. The reason why children with eczema have more difficulty with smallpox and other viral infections is currently unknown. In case smallpox vaccinations are needed, it may be important to find out why children with eczema get eczema vaccinatum due to smallpox vaccinations. In order to understand the immune response to a viral vaccine, we will study children who have received the chicken pox (varicella) vaccine. This study is examining the immune response to the chicken pox (varicella) vaccination and may provide important information about changes in the body's immune response to live virus vaccines in children with eczema. Understanding the different responses in children with and without eczema may allow for the creation of safer vaccines for smallpox and better treatments for vaccine complications. Participation will consist of 1 visit, approximately 3 weeks after the child has been vaccinated with the chicken pox (varicella) vaccine

Funding Sources: NIH

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Project Inventory

Title: Open-label extension study of CE1145 (Human pasteurized C1 esterase inhibitor concentrate) in subjects with congenital C1-INH deficiency and acute HAE attacks

Principal Investigator: Lynda C. Schneider, MD

Researchers Involved: Francisco A. Bonilla, MD, PhD - Hans Oettgen, MD - Anahita Dioun, MD - Rima Rachid, MD - Dale Umetsu, MD - Wanda Phipatanakul, MD - Sachin Baxi, MD - Douglas R. McDonald, MD – Mary Beth Son, MD – Melissa Hazen, MD - Michael Pistiner, MD - John Lee, MD - Rajashri Shuba Iyengar, MD - William Sheehan, MD - Perdita Permaul, MD - Jolan Walter, MD - Janet Chou, MD - Susan Rudders, MD - Ari Fried, MD - Arturo Borzutzky, MD - Lisa M. Stutius, MD - Erin M. Janssen, MD - Andrew I. Shulman, MD - Irene Borrás Coughlin, CCRC

Abstract: The study is an open-label extension study for subjects who were enrolled in study CE1145_3001 (CH Protocol # 05-07-104). After subjects have participated in CE1145_3001, they can be enrolled in this extension trial. Subjects will be treated with 20 U C1-INH per kg body weight, and will be observed until relief of symptoms. Following the first treatment with the study medication there are two visits for virus safety assessment at approximately one week and 3 months after study medication treatment. Patients can be treated multiple times. There is no limit to the number of treatments that a subject can receive. The study duration is planned for 24 months or until the product receives licensing, whichever comes first.

Funding Sources: CSL Behring

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Project Inventory

Title: Protocol LEVP2006-1: CHANGE 2 Trial (C1-Inhibitor in Hereditary Angioedema Nanofiltration Generation evaluating Efficacy): Open-Label Safety/Efficacy Repeat Exposure Study of C1 Esterase Inhibitor (Human) in the Treatment of Acute Hereditary Angioedema (HAE) Attacks

Principal Investigator: Lynda C. Schneider, MD

Researchers Involved: Francisco A. Bonilla, MD, PhD - Hans Oettgen, MD - Anahita Dioun, MD - Rima Rachid, MD - Dale Umetsu, MD - Wanda Phipatanakul, MD - Sachin Baxi, MD - Douglas R. McDonald, MD – Mary Beth Son, MD – Melissa Hazen, MD - Michael Pistiner, MD - John Lee, MD - Rajashri Shuba Iyengar, MD - William Sheehan, MD - Perdita Permaul, MD - Jolan Walter, MD - Janet Chou, MD - Susan Rudders, MD - Ari Fried, MD - Arturo Borzutzky, MD - Lisa M. Stutius, MD - Erin M. Janssen, MD - Andrew I. Shulman, MD - Irene Borrás Coughlin, CCRC

Abstract: This is a multi-center open-label study that will evaluate the efficacy and safety of C1INH-nf as a therapeutic agent for repeated use to treat acute Hereditary Angioedema (HAE) attacks. Patients will receive treatment for HAE attacks and will have a 3 month follow visit for Laboratory Safety. Patients also have the option of receiving C1-INH-nf as a prophylaxis treatment for surgical or dental procedures.

This study will be providing the study medication, C1INH-nf concentrate, as a compassionate treatment for patients who are suffering a HAE episode. This study will continue to collect safety and supportive data related to the hypothesis set forth in the Blinded Study, which was completed and is under FDA review.

Funding Sources: LevPharmaceuticls

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Project Inventory

Title: The role of hormone infertility therapy in the development of childhood peanut allergy

Principal Investigator: Lynda C. Schneider, MD

Researchers Involved: Michael Young, MD - Francis Twarog, MD - Mark Hornstein, MD - John Lee, MD - Stacey Missmer, Sc.D. - Irene Borrás Coughlin, CCRC - Munevver Cinar, MD

Abstract: Peanut allergy is a life-threatening allergy now affecting as many as 1% of children. The prevalence of peanut allergy has risen dramatically in the last 10 years (1). This diagnosis has a significant impact on the quality of life of the patient and family (2, 3). The reason for this dramatic increase remains unknown (4). Factors associated with increased peanut allergy have included the allergenicity of roasted forms of peanut, exposure in utero, early feeding of solid foods, use of topical ointments containing peanut, and possibly use of soy formula (4, 5). A recent report suggested that advancing maternal age could be a factor (6). The rate of allergic sensitization and atopic disease in general has also increased.

Dr. Schneider and Dr. Young have noted that the parents of approximately twenty children with food allergy report that conception of the child was by IVF. During IVF prospective mothers inject progesterone support emulsified in peanut oil. This has not previously been evaluated as a risk factor for peanut allergy. The goal of this study is to determine whether IVF conception and in particular the use of peanut oil containing progesterone support increases the risk of childhood peanut allergy.

Funding Sources: Jordan Foundation

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