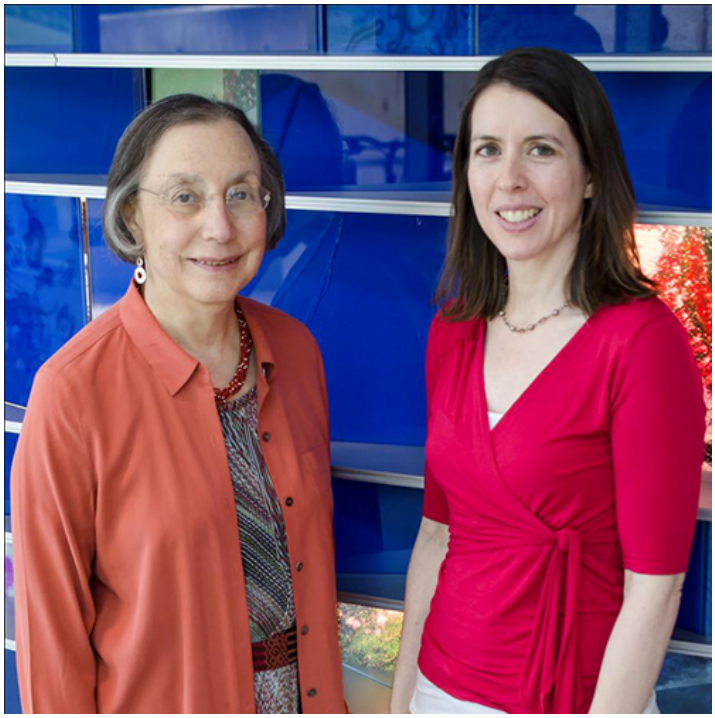
Cincinnati Children's

2015 Research Annual Report

Pediatric Dermatology

RESEARCH AND TRAINING DETAILS



Click to view members

Faculty	2
Research Fellows	1
Support Personnel	7
Direct Annual Industry Support	$24,603
Peer Reviewed Publications	4

CLINICAL ACTIVITIES AND TRAINING

Clinical Staff	9
Inpatient Encounters	176
Outpatient Encounters	6,301

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Division Publications

1. Bellodi Schmidt F, Shah KN. **Biologic response modifiers and pediatric psoriasis**. *Pediatr Dermatol*. 2015; 32:303-20.
2. Chu DH, Castelo-Soccio L, Wan J, Gelfand JM, Shaddy RE, Shah KN, Perman MJ, Treat JR, Yan AC. **Retrospective analysis of beta-blocker instituted for treatment of hemangiomas (RABBIT study)**. *Clin Pediatr (Phila)*. 2014; 53:1084-90.
3. Gutmark-Little I, Shah KN. **Obesity and the metabolic syndrome in pediatric psoriasis**. *Clin Dermatol*. 2015; 33:305-15.
4. Lindsley AW, Qian Y, Valencia CA, Shah K, Zhang K, Assa'ad A. **Combined immune deficiency in a patient with a novel NFKB2 mutation**. *J Clin Immunol*. 2014; 34:910-5.

Faculty, Staff, and Trainees

Faculty Members

Kara Shah, MD, PhD, Associate Professor

Leadership Division Chief

Research Interests atopic dermatitis, psoriasis, genetic skin diseases (genodermatosis), hemangiomas and vascular malformations, neonatal dermatology, cutaneous lymphoma, hair and nail disorders, moles and pigmented lesions

Anne Lucky, MD, Adjunct

Leadership Volunteer Professor

Research Interests Pediatric Dermatology

Clinical Staff Members

- **Katharine Bloomfield, RN**
- **Ann Borrego, MA**
- **Tricia Brichler, RN**, Registered Nurse
- **Terri Werling, MA**
- **Susan MacPherson, MSN, PNP-BC**, Nurse Practitioner
- **Leigh Ann Pansch, MSN, FNP-BC**, Nurse Practitioner
- **Tina Smithmeyer, MA**
- **Kelly Brauning, RN**
- **Annie Tepe, RN**

Trainees

- **Fernanda Bellodi Schmidt, MD**, PL-4

Grants, Contracts, and Industry Agreements

Industry Contracts

Shah, K

Galderma Research & Development, Inc	$24,603
Current Year Direct Receipts	**$24,603**
Total	**$24,603**

New Biologics Show Promise for Pediatric Psoriasis but Clinical Trials Needed First

Kara Shah, MD, PhD

Fernanda Bellodi Schmidt, MD

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Bellodi Schmidt F, Shah KN. Biologic response modifiers and pediatric psoriasis. *Pediatr Dermatol*. 2015;32(3):303-320.

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Pediatric Dermatology

Several biologic medications used to treat adult psoriasis appears to show promise for also treating pediatric psoriasis. However, clinical trials in children are needed to resolve concerns about increased risk of infections and malignancy.

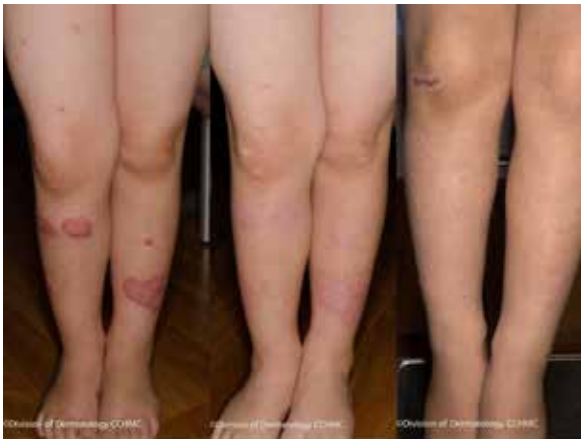
So states a review study published online Feb. 26, 2015, in the journal *Pediatric Dermatology* authored by Kara Shah, MD, PhD, Director of the Division of Dermatology, and Fernanda Bellodi Schmidt, MD, an assistant professor in the division.

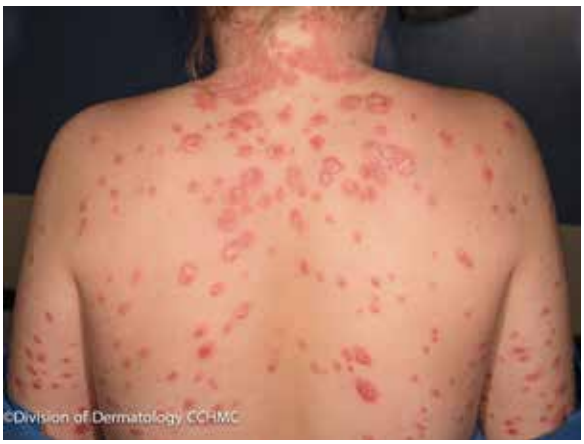
Currently, there are no FDA-approved medications to treat more severe cases of pediatric psoriasis. Shah and Bellodi Schmidt reviewed the current literature of the use of systemic medications to treat pediatric psoriasis, including case reports, case series, and a large clinical trial involving the use of etanercept, a biopharmaceutical effective in treating autoimmune diseases by acting as a tumor necrosis factor inhibitor. Clinical trials have demonstrated that etanercept and several other drugs in its class have shown safety and effectiveness in treating other pediatric inflammatory diseases such as Crohn's disease and juvenile arthritis. Only etanercept has been formally studied in pediatric psoriasis, and currently only the European Union has approved its use for the treatment of psoriasis in children.

"Pediatric dermatologists strongly support clinical trials evaluating the comparative efficacy and risks of medications used for the treatment of psoriasis in children, in particular systemic medications," Shah says.

Scientific concerns about this class of biologic response modifiers, which also includes adalimumab and infliximab, as well other biologic response modifiers such as ustekinumab, center on increased susceptibility to infection and increased risk of certain malignancies, particularly lymphoreticular malignancy.

"These risks appear low," says Shah, "and must be weighed against the concerns inherent to a chronic disease such as psoriasis, especially when severe enough to warrant systemic therapy."





Psoriasis, a chronic skin condition, varies in severity but pediatric dermatologists have long been challenged by the lack of biologic medications approved specifically for severe cases in children. Psoriasis changes the life cycle of skin cells, prompting them to build up rapidly on the skin, forming thick scales. The resulting itchy, dry, red patches can be painful. In this study, researchers analyzed previous reports, case series and clinical-trial data that might one day lead to FDA approval of a drug that resolves concerns about infection-risk and malignancy. The top image shows three different patients with, from left to right, a progression of improvement.

Only etanercept has been formally studied in children.