List of all priority research questions submitted. Questions progressing from Round 2 to Round 3 and final selection are highlighted.

Primary Domain	Question	Round 2 results	
		% scored 1-3 'not important'	% scored 7-9 'critically important'
Epidemiology	Can we predict who will develop chronic disease; associated comorbidities and/or adverse outcomes?	3%	76%
Epidemiology	Can clinically meaningful subtypes of AD be defined based on age at onset; genetics; environmental factors; and clinical features?	5%	71%
Epidemiology	What are the environmental influences on disease persistence; comorbidities and severity?	0%	68%
Epidemiology	What are the best measures of long-term AD disease control?	3%	62%
Epidemiology	How can we best define the severity of AD in different settings (i.e. in clinical trials; clinical practice; large epidemiological studies; etc)?	5%	56%
Epidemiology	What are the mechanisms and direction(s) of cause and effect linking AD with the comorbidities identified to date?	5%	54%
Epidemiology	What are the most common trajectories in terms of disease onset; duration and intensity; as well as comorbidity development?	2%	52%
Epidemiology	How can we reach a consensus on the definitions related to AD and meaningful tests for phenotyping?	10%	46%
Epidemiology	How do the epidemiology; pathophysiology; environmental influences; and biomarkers of AD differ globally; particularly in areas with limited resources; including Sub-Saharan Africa; Middle East and Southeast Asia? (Pathophysiology)	8%	43%
Epidemiology	Can we develop reliable and convenient ways to measure sleep quality and its impact? (Pathophysiology)	10%	40%
Epidemiology	How do the burden of disease and lifetime costs of treatment differ by racial/ethnic group; countries; and over time?	11%	33%
Epidemiology	What are the differences in treatment; quality of life; and disease impact of mild vs. moderate-to-severe AD?	11%	32%

Epidemiology	Is there a relationship between ectoparasites (scabies; lice; jiggers; etc.); endoparasites (worms; filariasis; onchocerciasis; schistosomiasis etc.); and AD?	40%	6%
Other	How can access to AD medications be ensured for all?	5%	62%
Other	What aspects of AD matter the most to patients? i.e. what aspects would they most like to be a priority for therapy (itch; appearance; flares; easier treatment use; etc)?	5%	55%
Other	What are the mechanisms of psychoneurogenic influence in atopic Inflammation?	12%	53%
Other	How can the quality of AD care be best measured and monitored in the different healthcare systems?	7%	45%
Other	What would be the best strategy to transmit authoritative and non-conflicting information and guidelines through the web for AD?	10%	45%
Other	How can recommendations for clinical practice related to AD comorbidities be introduced to clinicians worldwide?	7%	40%
Other	Is the hygiene hypothesis relevant for AD?	10%	38%
Pathophysiology	How do we best classify AD (disease endotype) to predict clinical outcomes (e.g. prognosis; systemic disease) and therapeutic outcomes (drug endotype)?	0%	73%
Pathophysiology	How to best correlate genotype with phenotype in AD?	2%	68%
Pathophysiology	What is the molecular mechanism of the itch sensation in AD and how can it best be treated?	5%	68%
Pathophysiology	What is the pathophysiology and response to treatment of adult-onset/elderly AD (and does it exist)?	2%	67%
Pathophysiology	How do pharmacogenomic factors relate to biologics and non-responders?	2%	65%
Pathophysiology	What are the driving; relevant trigger factors in AD (allergens; microbial antigens; autoantigens; etc)?	5%	65%
Pathophysiology	What is the role of the microbiome and antimicrobial peptides in AD (including initiation and maintenance)?	2%	63%
Pathophysiology	What is the primary cause of AD when it first develops in infancy?	7%	58%
Pathophysiology	Can we identify therapeutic targets for alleviating neural (especially itch); infectious; immunological and genetic disease triggers?	5%	50%

Pathophysiology	What are the relative roles of genetics; cytokine skewing; sleep deprivation; and psychosocial interaction impairment on psychological health in AD?	7%	43%
Pathophysiology	Does treatment of AD with immunosuppressants and biologics change the microbiome diversity and profile in skin of AD?	5%	38%
Pathophysiology	What are the homeostatic mechanisms of the stratum corneum?	8%	38%
Pathophysiology	What is the definition; pathogenesis; and response to therapy among the AD subgroup with nummular eczema?	8%	37%
Pathophysiology	Does IgE play any role in the pathogenesis of AD?	18%	30%
Pathophysiology	What is the prevalence of Filaggrin (FLG) mutation and its relation to AD in African population based studies?	17%	28%
Therapeutics	Which therapeutic strategies can prevent/ modify the course of AD and prevent the development of comorbidities? (Epidemiology; Translational)	0%	90%
Therapeutics	Which topical and systemic treatments are safest and most effective for short- and long-term disease control?	3%	77%
Therapeutics	What is the comparative effectiveness and side effect profile of systemic AD treatments (both classical and new)?	3%	72%
Therapeutics	How can the disturbed barrier of AD best be restored?	0%	65%
Therapeutics	How can we improve AD by interventions that do not directly target the immune system (e.g. skin barrier improvement; coal tar; microbiome)?	7%	58%
Therapeutics	How can we improve treatment adherence in AD?	5%	57%
Therapeutics	What non-pharmacological educational interventions; including AD schools; patient education; apps; online support centers and telemedicine; are effective in AD care?	8%	45%
Therapeutics	Can we define treatment aims for AD?	13%	45%
Therapeutics	Is there a role for psychological intervention in AD patients with depressive symptoms and how is this best achieved?	5%	43%
Therapeutics	Is there a role for modifying the intestinal microbiome or mycobiome in attenuating flares of AD?	7%	42%
Therapeutics	What is the most effective (including cost-effective) way to deliver AD patient education?	5%	40%

Therapeutics	What is the relative cost-effectiveness of AD treatments? (Epidemiology)	5%	40%
Therapeutics	What are the best practices to optimize safety and efficacy of topical steroids?	15%	40%
Therapeutics	What is the added value of combination therapy such a topical treatment combined with a systemic therapy for AD?	8%	33%
Therapeutics	What is the value of antibiotic therapy in AD disease management?	13%	32%
Therapeutics	What is maximal dosing and duration of cyclosporine therapy in pediatric AD?	18%	30%
Therapeutics	Would a daily stay outdoors of more than 2 hours improve or stabilize the disease; irrespective of the weather?	42%	13%
Translational	How can AD be sub-classified using biomarker assessments and other tests in ways that allow better prediction of severity; disease course; treatment response; and comorbidities? (Pathophysiology; Therapeutics)	5%	78%
Translational	What are the mechanisms and potential therapeutic strategies to reduce and control disease flares in AD?	0%	70%
Translational	Can we develop non-steroid therapeutic strategies based on the pathophysiological mechanisms of AD?	3%	60%
Translational	How can we better measure the role of specific environmental agents (allergens; including food allergens; microbial balance; etc) in an individual patient in triggering AD and its flares? (Pathophysiology)	7%	55%
Translational	Can we develop uniform treatment guidelines for AD? (Therapeutics)	5%	53%
Translational	How does trial evidence translate into real world evidence in AD care?	5%	48%
Translational	Can we develop disease descriptors that will encompass AD variants and can be agreed upon across the globe and within various specialties; especially allergy and dermatology?	12%	42%
Translational	How can we detect subclinical AD non-invasively?	15%	33%
Translational	What would be the best tool to have a reliable image of the familial environment (including emotional dynamics) surrounding the patient with AD?	10%	28%