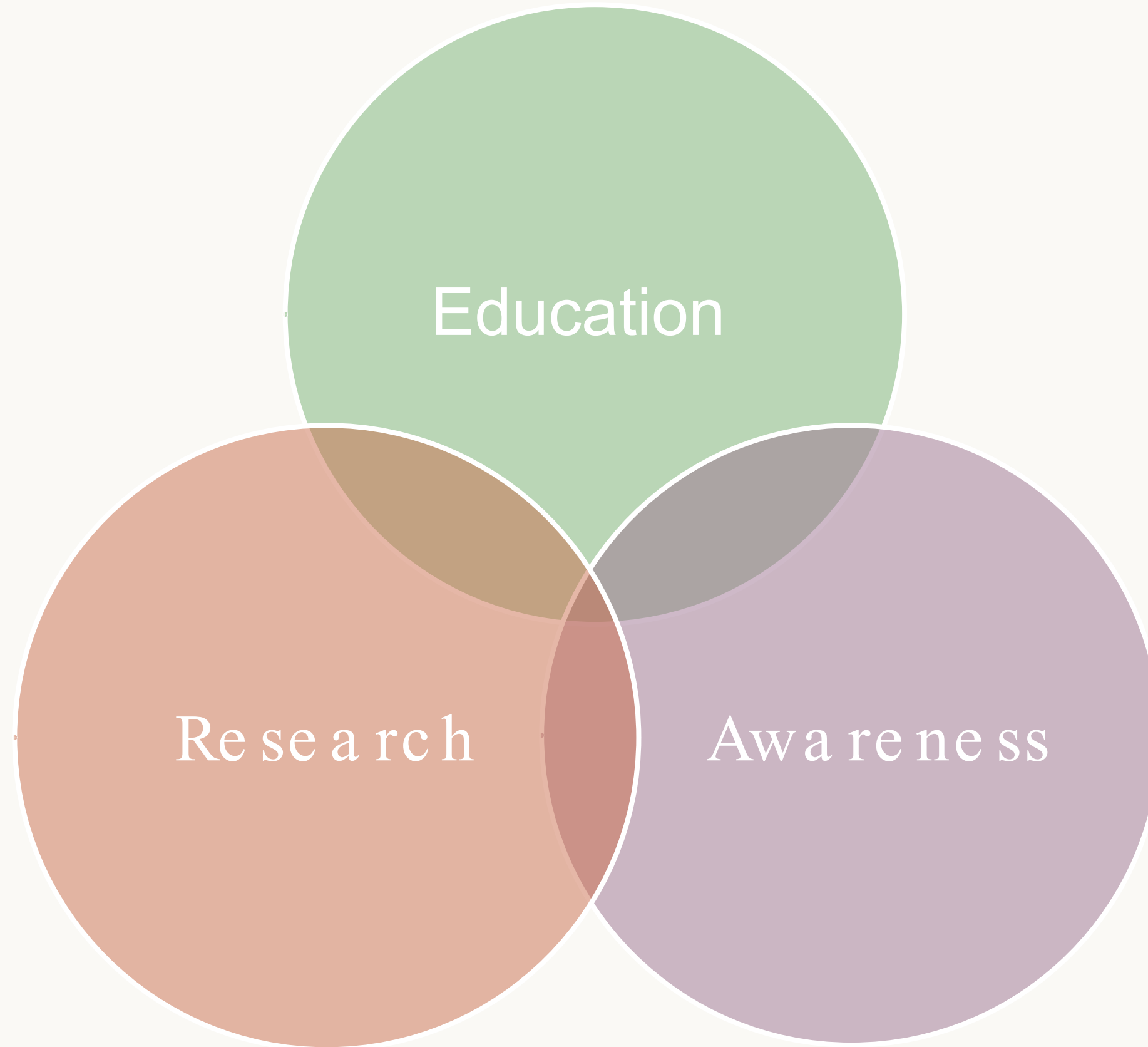


THE AP S TYPE 1  
FOUNDATION

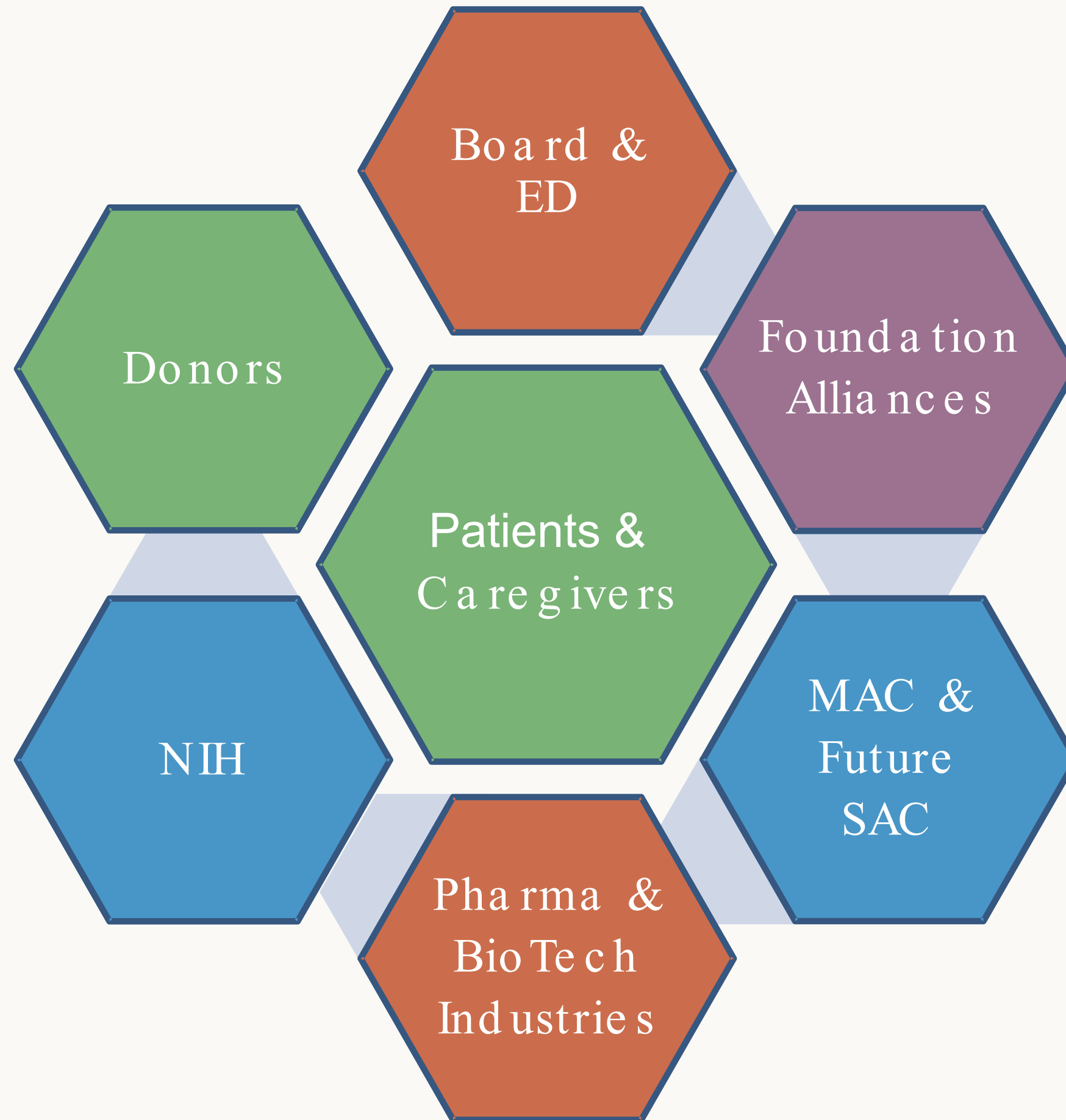
JUNE 18, 2024 | JENNIFER ORANGE

A P S 1

# OUR MISSION



# WHO WE ARE





APS TYPE 1  
FOUNDATION  
BOARD

NEW EXECUTIVE  
DIRECTOR  
Svetlana Hutfles



# MEDICAL ADVISORY COMMITTEE

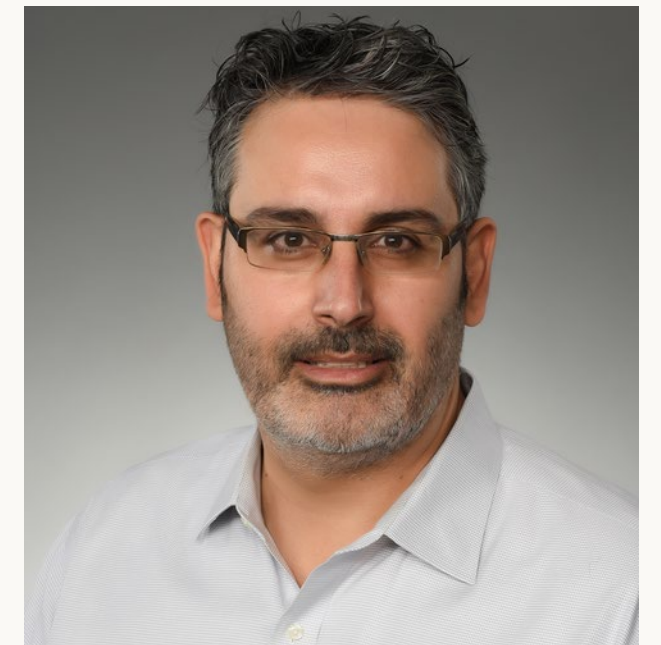
Dr. Mark Anderson, MD, PhD, is a professor and physician scientist in the UCSF Diabetes Center and a recognized expert in the genetic underpinnings of autoimmune diseases and the control of immune tolerance. He helped establish a genetic mouse model of APS Type 1 to help understand how tolerance is disrupted in APS Type 1 patients.



Dr. Richard J. Auchus, Professor of Pharmacology and Internal Medicine, received his MD and PhD from Washington University. He completed training in internal medicine at the University of Iowa Hospitals and a fellowship in Endocrinology at the Wilford Hall in USAF Hospital and the University of Texas Health Sciences Center in San Antonio. Dr. Auchus' research includes clinical and translational investigation in disorders of the pituitary, adrenal, ovaries and testes.



Dr. Michael S. Lionakis, Chief, Fungal Pathogenesis Section Laboratory of Clinical Immunology and Microbiology, NIAID, NIH, obtained his MD and ScD from the University of Crete, Greece. He did clinical and research training at MD Anderson Cancer Center, Baylor College of Medicine and NIH. His IRB-approved APS Type 1/ APECED clinical research protocol aims to understand the mechanisms of autoimmunity and fungal susceptibility and improve diagnostic and therapeutic strategies for patients.



# MEDICAL ADVISORY COMMITTEE

Dr. Dana Orange, MD, MSc, is an Associate Professor at Rockefeller University, received her medical degree from Weill Cornell Medical College, Cornell University, and her MSc from Rockefeller University. She completed her Internal Medicine Residency at New York Presbyterian Hospital and her Rheumatology Fellowship at the Hospital for Special Surgery. Dr. Orange is facilitating research on APS Type 1 as a principal investigator of the APS Type 1 (APECED) Registry, an IRB approved protocol.



Dr. Maureen A. Su, Professor of Microbiology/ Immunology and Medical Genetics and Pediatric Endocrinology at UCLA, received her bachelor's, master's and medical degree from Harvard. She completed her pediatric residency and fellowship in endocrinology at UCSF. Dr. Su seeks to understand what causes autoimmune diseases in order to develop therapeutics to prevent and treat the underlying immune condition. Her work focuses on APS Type 1, GBS/ CIDP, and T1D.



# WHAT WE DO

## EDUCATE

International Symposia  
Global Scientific  
Summits

## SUPPORT RESEARCH

Web-based  
Registry  
Research Grants

## RAISE AWARENESS

Conference Talks  
Extensive Website  
Materials  
Social Media  
Presence



# INTERNATIONAL SYMPOSIUM



Our patients and families at the 2017 Symposium in Stony Brook, NY

Our patients and families at the 2019 Symposium in National Harbor, Maryland



# INTERNATIONAL SYMPOSIUM



Our patients, doctors and families at the 2023 Symposium in Washington, DC

# GLOBAL SCIENTIFIC SUMMIT 2022



# OUR ACCOMPLISHMENTS

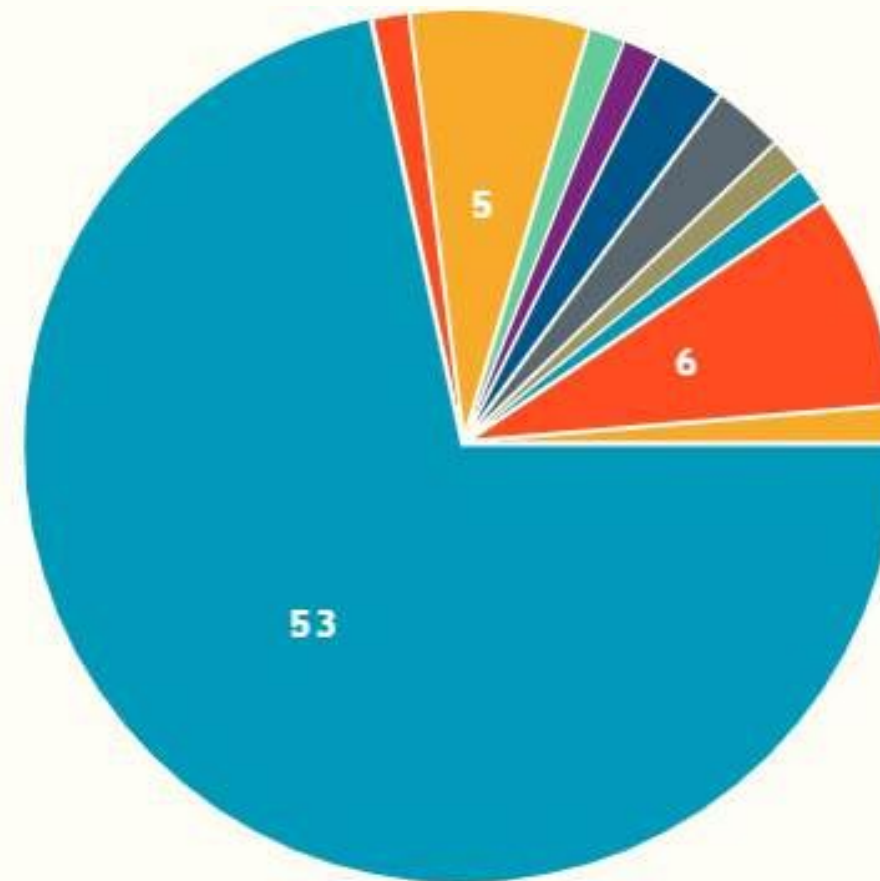
Raised over \$700K for  
Research

Developed a Web-based  
Registry



# THE APS TYPE 1 (APECED) REGISTRY

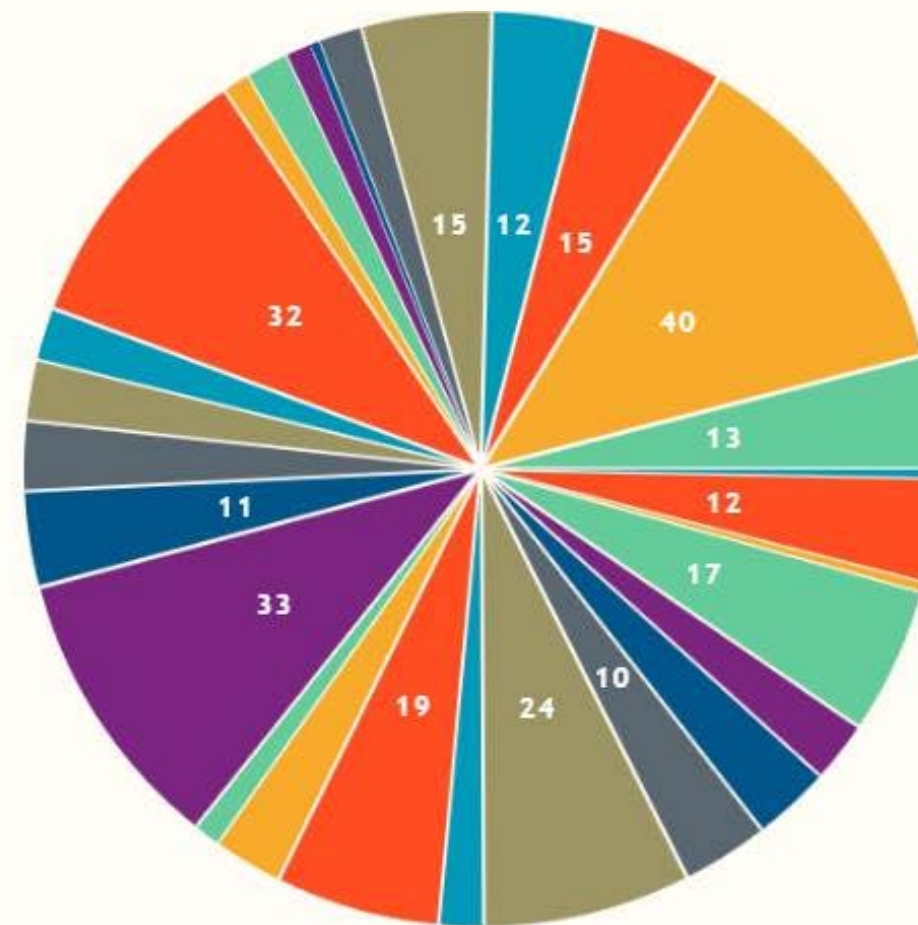
Our registry has 133 patients registered from 11 countries.



United States Brazil Canada Croatia France Greece Ireland Isle of Man Italy United Kingdom of Great Britain and Northern Ireland (the) Vanuatu

# THE APS TYPE 1 (APECED) REGISTRY

APS Type 1 leads to a large range of different symptoms and conditions.



None	Alopecia (hair loss)	Asplenia (spleen dysfunction and infection susceptibility)	Autoimmune Hepatitis (liver inflammation)
Chronic Bloating	Chronic Constipation	Chronic Diarrhea	Chronic Mucocutaneous Candidiasis
Early onset Hypertension (high blood pressure)	Tooth Enamel Dystrophy	Gastritis (stomach inflammation)	Growth Hormone Deficiency
Hypoparathyroidism	Hypothyroidism	Keratoconjunctivitis (eye inflammation)	Ovarian Failure
Pneumonitis (lung inflammation)	Addison's Disease (Primary Adrenal Insufficiency)	Severe Fat Malabsorption	Sjogrens-Like Syndrome (dry eyes or mouth)
Testicular Failure	Tubulointerstitial Nephritis (kidney problem)	Type 1 Diabetes (juvenile diabetes)	Urticaria (hives)
Vitamin B12 Deficiency	Vitiligo (patches of white skin)	Other	Nail dysplasia

## Education Initiative

# Genetic Testing Decision Tree



## Autoimmune Polyglandular Syndrome Type 1 (APS Type 1)



Autoimmune Polyglandular Syndrome Type 1 (APS Type 1), also known as Autoimmune Polyendocrinopathy–Candidiasis–Ectodermal Dystrophy (APECED), is a rare genetic disorder that is often misdiagnosed. Mutations in the AIRE gene lead to three classic manifestations along with other common symptoms. This resource aims to assist you with diagnosis and referring a patient to a genetics professional. For additional information, visit the APS Type 1 Foundation [website](#) or review this research [article](#).

### Classic Manifestations

**1** **Chronic Mucocutaneous Candidiasis**  
Patients may experience recurring and long-lasting fungal infections that affect the skin and mucous membranes.

**2** **Autoimmune Hypoparathyroidism**  
When the parathyroid glands malfunction, low serum calcium may lead to patients experiencing seizures, fatigue, muscle pain and cramping, and a tingling sensation in lips, fingers, and toes.

**3** **Adrenal Insufficiency (Addison's Disease)**  
Malfunction of the adrenal glands leads to muscle weakness, loss of appetite, weight loss, low blood pressure, and changes in skin coloring.

### Adjunct Triad

**1** **Urticarial Eruption (hives)**  
Patients often experience a recurrent maculopapular rash that typically resolves on its own and is not usually itchy but can be.

**2** **Enamel Hypoplasia**  
Patients may have a deficiency in enamel production, making the teeth appear yellow or spotted, with or without cavities.

**3** **Intestinal Malabsorption**  
When nutrients are not properly absorbed by the small intestine, patients experience increased fecal fat and disruption of the gut microbiome.

### Does your patient have...

symptoms for one classical manifestation



symptoms for a manifestation within the adjunct triad?

OR

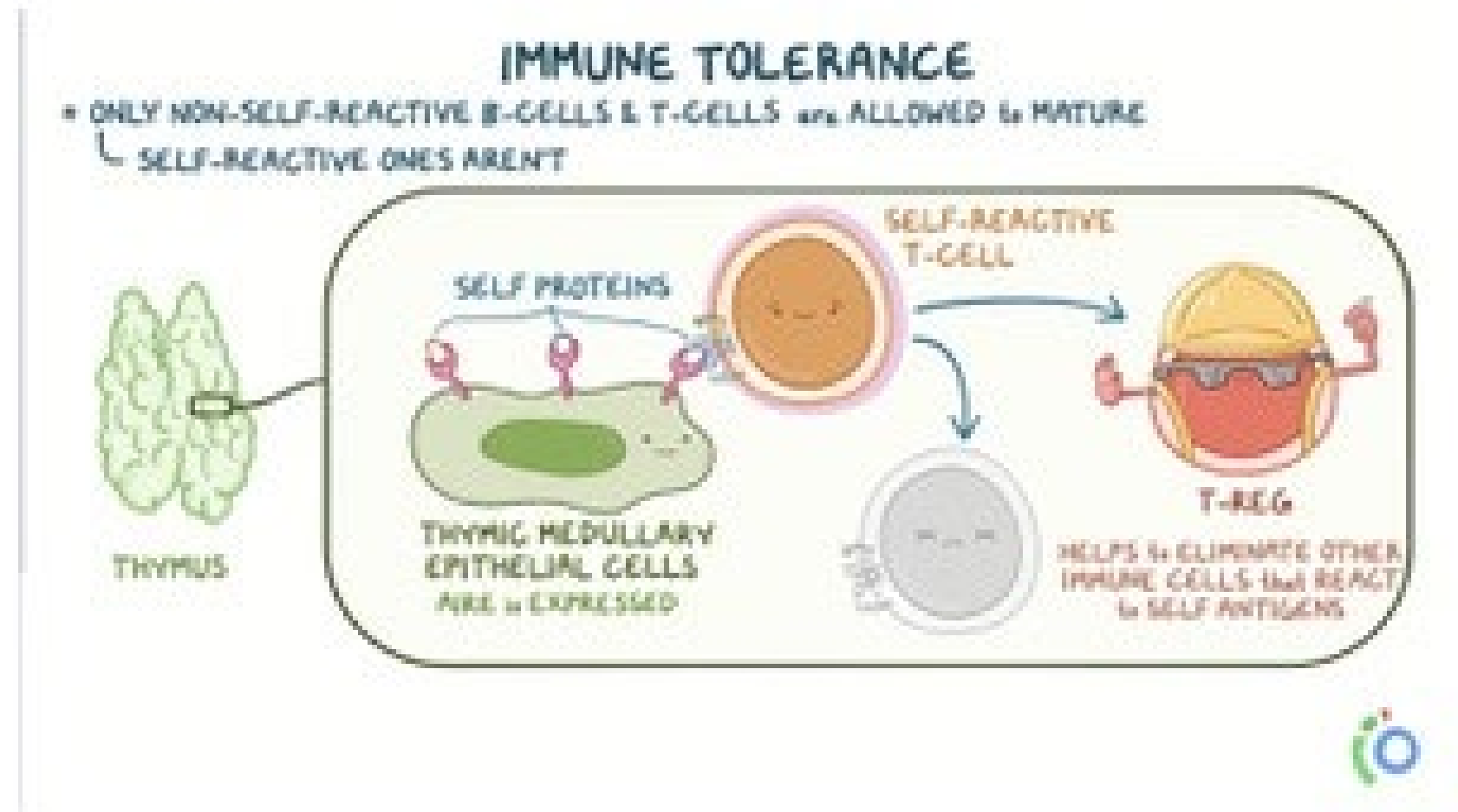
symptoms for two of the classic manifestations?



It is recommended that your patient be referred to a genetics professional for genetic testing of the AIRE gene.



## What is APS Type 1?



Osmosis.org video on  
“What is APS Type 1?”





# Fundraising: Accomplishments & Opportunities



**APSTYPE1.ORG**

## APS-1 Arts Festival

Celebrating the life of James Read

**Southside Lincoln**  
Sunday 9th July 2023, 1pm  
St Katherine's Hall LN5 8DW

**Fundraising for APS-1 Foundation**

- ★ Live music
- ★ Stalls selling art, crafts, books, fashion, baked goods and more
- ★ Film screening about James
- ★ Raffle prizes
- ★ Art auction
- ★ Bar and catering

Reserve free tickets on eventbrite, donations on the door.



**APS1**  
Autoimmune Polyglandular Syndrome Type 1

HOME ABOUT EDUCATION RESEARCH REGISTRY GET I

## Rare Disease Day 2023

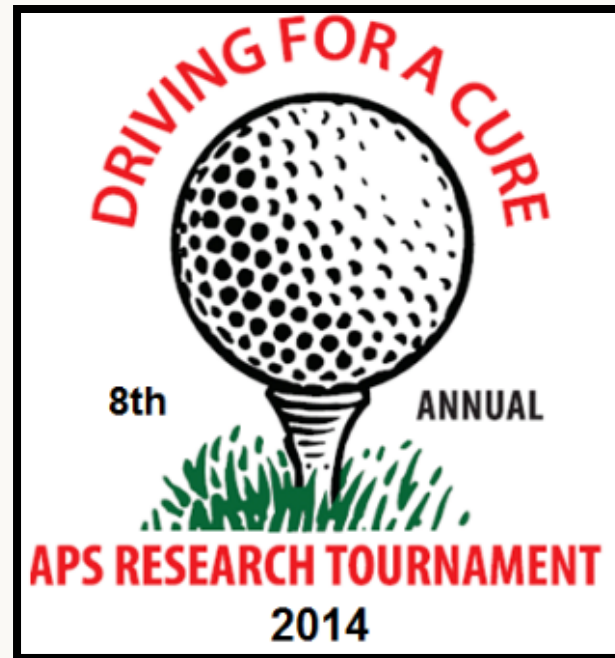
**WALK 1000 MILES FOR APS TYPE 1**

WALK WITH US



Our community has found creative ways of fundraising and raising awareness for APS Type 1

# PAST FAMILY FUNDRAISERS



<h3>Fact Cards</h3> <p>Come up with your own creative way of displaying your fact cards at your next Serving Awareness dinner!</p>	<p>APS Type 1 affects about <b>1 in 2 million people</b>. Now that is rare!</p>
<p>The average time between the appearance of symptoms and a correct diagnosis of APS Type 1 is <b>over 10 years!</b></p>	<p>APS Type 1 is the only known autoimmune disease caused by a <b>single gene pair</b>.</p>
<p>We held the first <b>International Symposium</b> on APS Type 1 in 2015, with world leading researchers and patients all sharing their expertise.</p>	<p>The <b>National Institutes for Health</b> is engaged in the first U.S. natural history study of APS Type 1 with <b>over 50 patients</b>.</p>
<p>The <b>early symptoms</b> of APS Type 1 vary, but can include candida (yeast) infections in the mouth or on the skin, low calcium levels (hypoparathyroidism), fatigue and salt craving (Addison's Disease), fevers and a hive-like rash.</p>	<p>Our APS Type 1 community is full of foodies. <b>We love to eat!</b></p>



# OUR VISION FOR THE FUTURE



Find our patients here and around the world

Shorten time to diagnosis

Find better treatments

Find a cure

Support the LIVED experience of our patients and families

Build a global research network

Expand our registry for greater publication

Fundraise for all of the above

HOW  
CAN  
YOU  
HELP?

CONNECT YOUR  
PATIENTS WITH US

BRING IN NEW CLINICIANS  
& SCIENTISTS

FOLLOW THE  
FOUNDATION

HOW  
CAN  
WE  
HELP?

CONNECT YOU TO  
OTHER PATIENTS,  
FAMILIES & PHYSICIANS

SHARE EDUCATIONAL  
MATERIALS, RESEARCH AND  
NEW FINDINGS

BE RECEPTIVE TO ALL OF  
YOUR IDEAS

# Thank you!



National Institute of  
Allergy and  
Infectious Diseases



And a big thanks to Robin Finch and  
Julia Band Orange for their help with this  
presentation!



THANK YOU!

A P S 1