

# Center for Vaccines at the Extremes of Aging



Directors: Martha A. Alexander-Miller PhD, Karen M. Haas PhD, Katherine A. Poehling MD, MPH

Because You Matter: Allison Chandler, Cheryl Courtlandt, Stephanie Daniel, Capri Foy, Cara Janusz, Sarah Mabus, Laura Noonan, Katherine Poehling, Beverly Snively, Lauren Vannoy

#### Purpose/Mission

- To improve health and save lives in most vulnerable populations through developing more effective vaccines and promoting their uptake through educational activities.
- To improve the effectiveness, safety, and uptake of vaccines in the very young and very old using basic, public health, and clinical research as well as community education.
- To leverage diverse perspectives and generate innovative approaches to overcome the limitations of vaccination in the very young and the very old.
- To increase vaccine confidence.

# Leadership



Martha Alexander-Miller, PhD
Dolores G. Evans, PhD Chair & Professor
Microbiology & Immunology



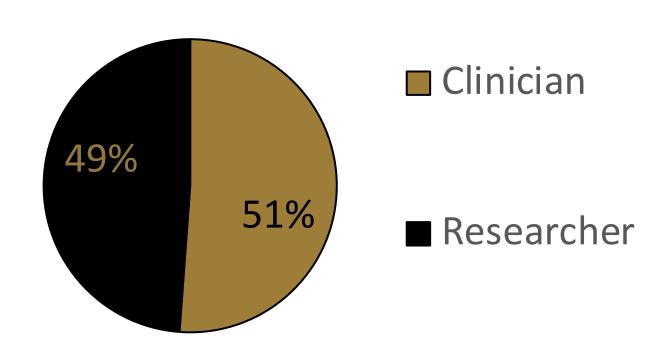
Karen Haas, PhD
Associate Professor,
Microbiology & Immunology



Katherine Poehling, MD, MPH
Professor,
Pediatrics & Epidemiology

# Membership

- 43 members across Winston-Salem and Charlotte campuses
- Members from 13 departments--3 Basic Science and 10 Clinical



# **Types of Science**

- Vaccine development for
  - newborns (influenza)
  - infants (E. coli)
  - elderly (S. pneumoniae)
- COVID-19
- Innate immune regulation in elderly
- Vaccination and immunity in pregnant women and their infants
- Immune regulation & Alzheimer's Disease
- Vaccine hesitancy/confidence
- Improving implementation and equity as a part of the Academic Learning Health System

# Foci of Interest from Strategic Planning Retreat

- Vaccine hesitancy/confidence
- Mucosal immunity

# Leveraged Resources

- Brenner Children's Hospital
- Center for Advancing Pediatric Excellence
- Levine Children's Hospital
- Maya Angelou Center for Health Equity
- Nonhuman Primate Colony
- Qualitative and Patient-Reported Outcomes Shared Resource (Q-PRO)
- Sticht Center for Healthy Aging and Alzheimer's Prevention
- STRIVE for Healthier Futures

# **Community Outreach**

#### **Rx for Science Literacy- Vaccines**

Host annual Rx for Science Literacy workshop on vaccines for middle and high school teachers across the state, including rural NC. Center members present information for teachers to use in their classrooms and share cutting-edge research. Presenters include students who share their work and hone skills in communicating research to non-scientists.

#### **Mentoring and Training**

### Junior faculty (MD, PhD, DVM)

- Mentored research with publications
- -Elizabeth Halvorson, MD, MS (Pediatrics)
- -Matthew Zuber, MD (ObGyn)
- -Charles Semelka, MD (IM/Geriatrics)
- Mentored to K grant submission
  - –Shane Sills, DVM, current PhD student supported with pilot funding
- Pilot funding to support independent research program development
  - –Matthew Zuber, MD (ObGyn): Association between maternal smoking exposure during pregnancy and vaccine response/transplacental antibody transfer
  - David Kram, MD (Pediatrics):
     Addressing vaccine-hesitant individuals using an altruism-focused educational intervention

#### Graduate and medical students

 Center members train students pursuing PhD, MD, DVM, and MS degrees and host short research experiences for students interested in research.

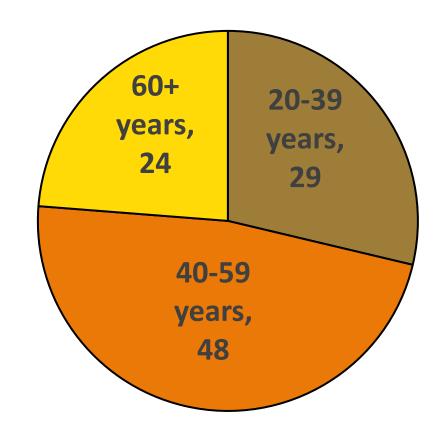
# Because You Matter: Conversations You Want about COVID-19 Vaccine

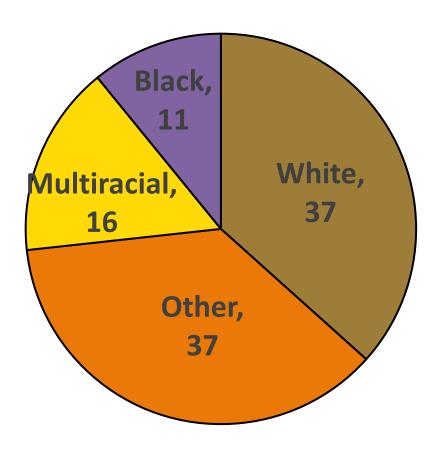
#### **Objective:**

Focus group informed development of a tailored and EHR-linked toolkit to address COVID-19 vaccine concerns and increase vaccine acceptance in adults.

Study Population: 22 individuals across both regions

- 20 to 77 years of age
- 82% female, 50% Hispanic, 32% Spanish-speaking





#### Results:

**Preliminary Themes** 

- Influence of myths (e.g., altering DNA, trackers)
- Cultural considerations & community beliefs (e.g., translations need to use everyday language and interactions need to value family connections)
- Information specific to me (e.g., COVID + diabetes)
- Include community in message development
- Empower trusted influencers familiar with local preferences to disseminate information
- Need fresh approach to counter information fatigue (e.g., brief videos, cartoons)
- Make information understandable and relatable

# Next Steps:

- Finalize qualitative analysis
- Utilize member checking by inviting focus group members to confirm findings and co-create toolkit
- Create questionnaire to identify questions/concerns and inclusive videos to address each concern
- Pilot link in MyChart to evaluate use and acceptability of tool, and impact on COVID vaccine acceptance in EHR
- Funded by WFSM CTSI (IRB #75790)