



# Department of Defense Agency Activities

## Report to the U.S. Department of Health and Human Services Task Force on Research Specific to Pregnant and Lactating Women

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# Military Health System

Office of the Assistant Secretary of Defense (Health Affairs)

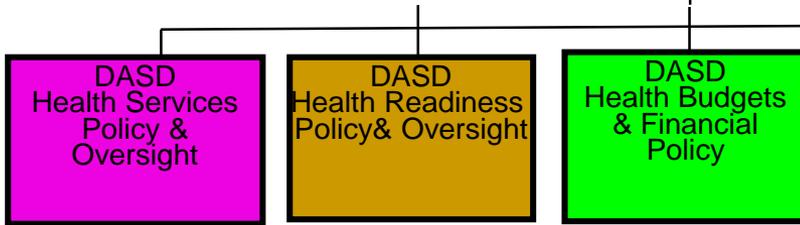


Secretary of Defense

Undersecretary of Defense  
Personnel & Readiness

Assistant Secretary of  
Defense (ASD) (HA)  
Principal Deputy ASD

**Organizational Relationship**  
—— Direct Report  
----- Advisory



Policy and Oversight



Execution

“Combat Support Agencies”





# Congressionally Directed Medical Research Programs: Current

- [Alcohol and Substance Abuse Disorders](#)
- [Amyotrophic Lateral Sclerosis](#)
- [Autism](#)
- [Bone Marrow Failure](#)
- [Breast Cancer](#)
- [Defense Medical Research and Development](#)
- [Duchenne Muscular Dystrophy](#)
- [Epilepsy](#)
- [Gulf War Illness](#)
- [Joint Warfighter Medical](#)
- [Lung Cancer](#)
- [Military Burn](#)
- [Multiple Sclerosis](#)
- [Neurofibromatosis](#)
- [Orthotics and Prosthetics Outcomes](#)
- [Ovarian Cancer](#)
- [Parkinson's](#)
- [Peer Reviewed Alzheimer's](#)
- [Peer Reviewed Cancer](#)
- [Peer Reviewed Medical](#)
- [Peer Reviewed Orthopaedic](#)
- [Prostate Cancer](#)
- [Psychological Health/Traumatic Brain Injury](#)
- [Reconstructive Transplant Research](#)
- [Spinal Cord Injury](#)
- [Tick-Borne Disease](#)
- [Tuberous Sclerosis Complex](#)
- [Vision](#)



# DoD Research

- DoD funded research studies fall under the following topic areas (166 studies):
  - MHS healthcare (3 studies)
  - Military readiness (7 studies)
  - Military relevant exposures and reproductive outcomes (11 studies)
  - Pregnancy/lactation and disease risk/susceptibility (107 studies)
  - Prenatal exposures and offspring disease risk/susceptibility (31 studies)
  - Safe and effective therapies for pregnant women and lactating women (7 studies)



# Currently Funded Research Studies

- Validation of a Cesarean Section Simulator to Improve Surgical Skills during Deployment and at the MTF
- A Randomized Controlled Trial of Simulator Training Versus "Hands-on" Training for Competence in Obstetric First Trimester Ultrasound in Army Family Medicine Residency Programs
- Gulf War Women's Health Cohort
- Novel Models to Study Effect of High-Altitude Hypoxic Exposure and Placental Insufficiency on Fetal Oxygen Metabolism and Congenital Heart Defects
- Novel Approaches to Breast Cancer Prevention and Inhibition of Metastases
- Educating Normal Breast Mucosa to Prevent Breast Cancer
- Targeting the Prometastatic Microenvironment of the Involuting Mammary Gland
- Selective Activation of p53 and Genome Surveillance Pathways by Estrogen Receptor Beta
- Understanding Physiological Prevention of Breast Cancer: Effect of Early First Full-Term Pregnancy
- Mechanisms of Synaptic Alterations in a Neuroinflammation Model of Autism



# Currently Funded Research Studies

- Maternal Brain-Reactive Antibodies and Autism Spectrum Disorder
- Macrophage Polarization and Utility of in Vivo Therapy with a Brain-Permeable Anti-TNF Agent in Models of Autism
- Prenatal Polyunsaturated Fatty Acid Levels and Risk of Autism Spectrum Disorders
- In Utero Estrogen Exposure Increases Antiestrogen Resistance by Inducing EMT
- Gestational Exposure as Epigenetic Modifier of Breast Cancer Risk
- Gestational Exposure to Soy Isoflavones and Epigenetic Regulation of Breast Cancer Risk
- Randomized Controlled Trial of a Sleep Study + Targeted CPAP Therapy for Obstructive Sleep Apnea to Reduce the Incidence of Adverse Pregnancy Outcomes
- Novel Synergistic Antimalarials with Gametocytocidal Activity
- Zika Virus Vaccine Target Development in a Mouse Model of Disease
- Defining the Role of the 5-HT4 Receptor in the Brain, Behavior, and Gut Abnormalities Resulting from In Utero SSRI Exposure
- Zika Virus Persistence in Immune-Privileged Organs



# Clinical Care Activities

- Maternal and child health care is provided through the direct care system (Military Treatment Facilities) and through TRICARE , which is the health care benefit for active duty military, their dependents and retirees
- In FY 2015, about 120,000 babies were born in the MHS
- MHS provides comprehensive coverage for pregnant and lactating women
  - Availability of maternity care, breast pumps and lactation support
  - Support services including the Family Advocacy Program to promote healthy relationships and the New Parent Support Program that offers home visitation and parenting education
- Active and passive surveillance of pregnancy-related conditions
  - Recent evaluation of post-partum hemorrhage with changes to clinical care guidance and including provider education
- Development of clinical practice guidelines, in collaboration with VA



# Communication Activities



- Websites with downloadable resources such as:
  - Health.mil—recent article on World Breastfeeding Week
  - Military OneSource—multiple pages on family and relationships and parenting
  - Tricare.mil—multiple pages on pregnancy, post-partum and lactation
- Federal partner of Text4Baby (text messaging app)
- Information about the Military Health System: <https://health.mil/>
- Military One Source provides one website for Military Families to access resources (<http://www.militaryonesource.mil/> )



# Other Collaborative Efforts

- Federal Interagency Forum on Child and Family Statistics
- Partner with NIH, FDA, CDC and SAMHSA to sponsor a workshop addressing critical gaps in research on opioid use including areas of:
  - Screening
  - Pregnancy Complications
  - Treatment



# Summary

- DoD is an integrated health care system that provides clinical care and other supports to military Service members and their families.
- DoD supports a large research program that includes studies on pregnant and lactating women
- DoD collaborates as a Federal partner in a variety of activities that support pregnant and lactating women



# Military Health System Mission

America's Military Health System (MHS) is a unique partnership of medical educators, medical researchers, and health care providers and their support personnel worldwide.

It is prepared to respond anytime, anywhere with comprehensive medical capability to military operations, natural disasters and humanitarian crises around the globe, and to ensure delivery of world-class health care to all DoD service members, retirees, and their families. The MHS promotes a fit, healthy and protected force by reducing non-combat losses, optimizing healthy behavior and physical performance, and providing casualty care.