

Analysis of National Institutes of Health Funding in Hand Surgery

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Disclosures: None

Background: Research budgets of the National Institutes of Health (NIH) are decreasing, yet adequate funding is needed to advance biomedical research. Currently, the state of NIH funding in hand surgery is poorly understood. This study elucidates the portfolio of NIH grants to hand surgeons.

Methods: This was a cross-sectional study of NIH grants awarded to American Society for Surgery of the Hand (ASSH) members during 1992 - 2016. Funding totals, mechanisms, and institutes were obtained from the NIH RePORTER database. Abstracts were categorized by research type (clinical, translational, basic science, education/training) and area of interest. An Internet-based search was conducted to determine principal investigator characteristics.

Results: 2,316 ASSH members were queried and 19 had NIH funding (0.8%). NIH-funded hand surgeons were predominately male (17/19, 89%), full-professors (14/19, 74%), and orthopaedic trained (15/19, 79%). 39 unique grants were awarded for a total of \$57,462,753. R01 grants accounted for most costs (84.2%) followed by ZIA intramural grants (6.4%), and K24 (2.1%) grants. The top NIH institutes were the National Institute for Arthritis and Musculoskeletal and Skin Diseases (63.2%) and the National Institute for Neurological Disorders and Stroke (34.1%). Costs supported translational (47.9%), basic science (32.5%), clinical (16.9%), and education/training (2.7%) research. Funded areas of research included peripheral nerve (29.6%), tendon (25.2%), nerve compression (11.4%), bone (18.4%), microvascular (7.8%), and joint

(7.6%) diseases. The top funded institutions were Washington University (32.8%), Mayo Clinic (24.9%), and University of Michigan (14.7%).

Conclusions: Few hand surgeons obtain NIH research grants suggesting a tenuous portfolio for possible budget cuts. Future research should elucidate barriers to NIH funding procurement among academic hand surgeons.