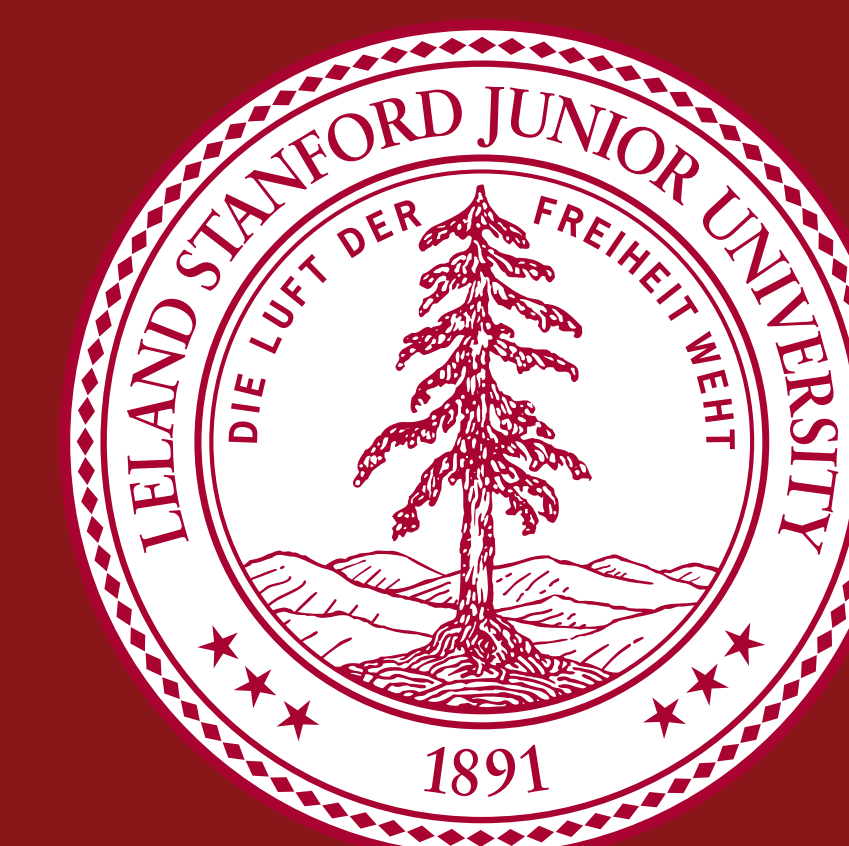


Gender Disparities Amongst Surgeon-Scientists in Otolaryngology-Head and Neck Surgery



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Introduction

- **Surgeon-scientists** play a vital role within the academic realm, providing essential perspectives that advance our comprehension of disease pathophysiology.
- Despite a decade of increased females in medical schools and surgical residencies, specific trends among female surgeon-scientists remain inadequately studied¹.
- **Objectives:**
 1. Investigate NIH grant allotment & K to R/U grant conversion from fiscal years 2007 to 2020 among female surgeon-scientists in Otolaryngology-Head & Neck Surgery (OHNS).
 2. Compare OHNS trends with those in Neurosurgery and Ophthalmology.

Methods and Materials

- Surgeon-scientists = individuals with an MD or MD/PhD degree who received NIH funding.
- NIH RePORTER was used to obtain NIH grant data.
- AAMC Physician Specialty Report was used to obtain the number of active female physicians by specialty.

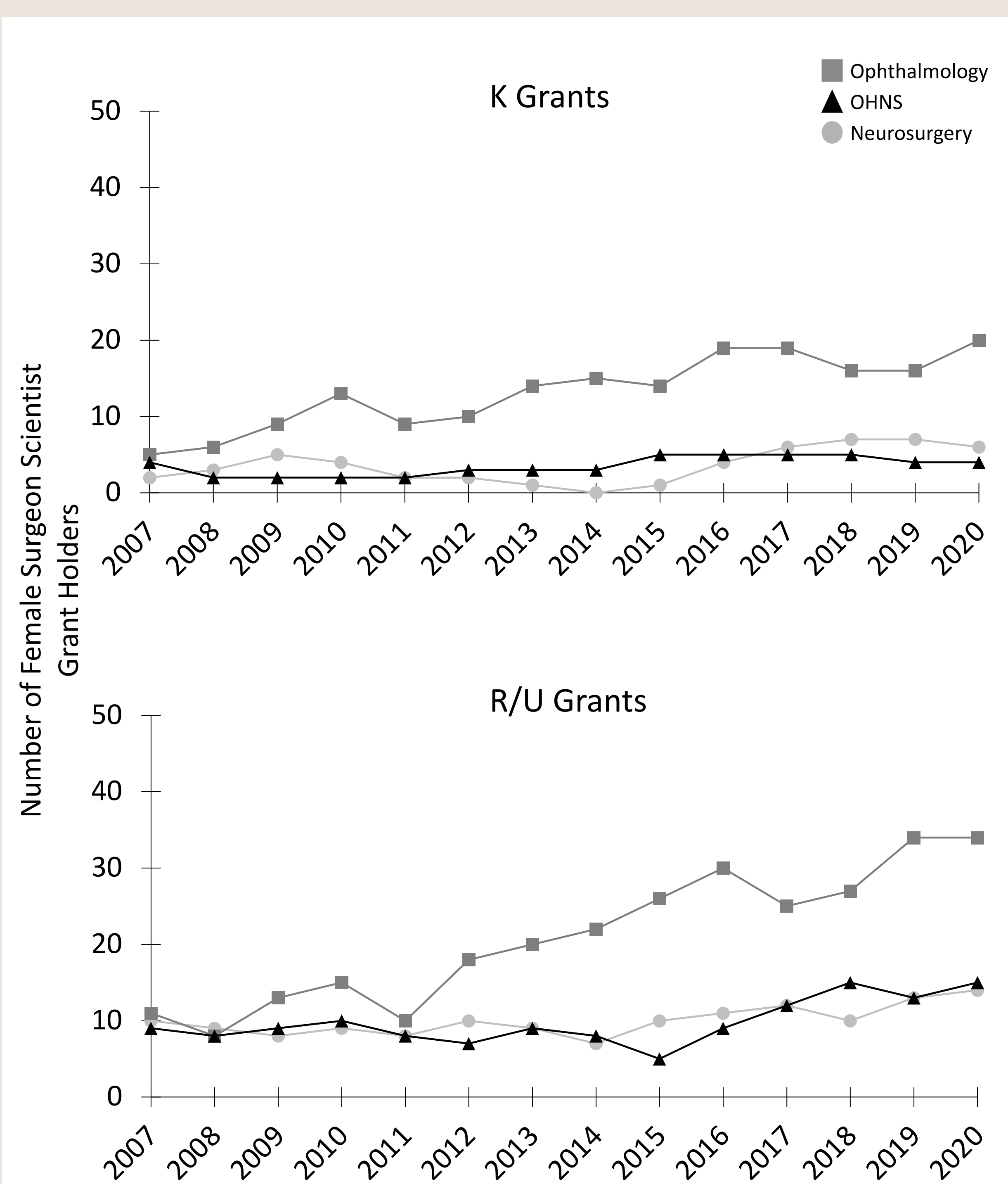


Figure 1. Number of Female Surgeon-Scientist PIs with NIH K Grants and R/U grants in Ophthalmology, OHNS, and Neurosurgery. Abbreviations: OHNS = Otolaryngology – Head & Neck Surgery; PI = principal investigator.

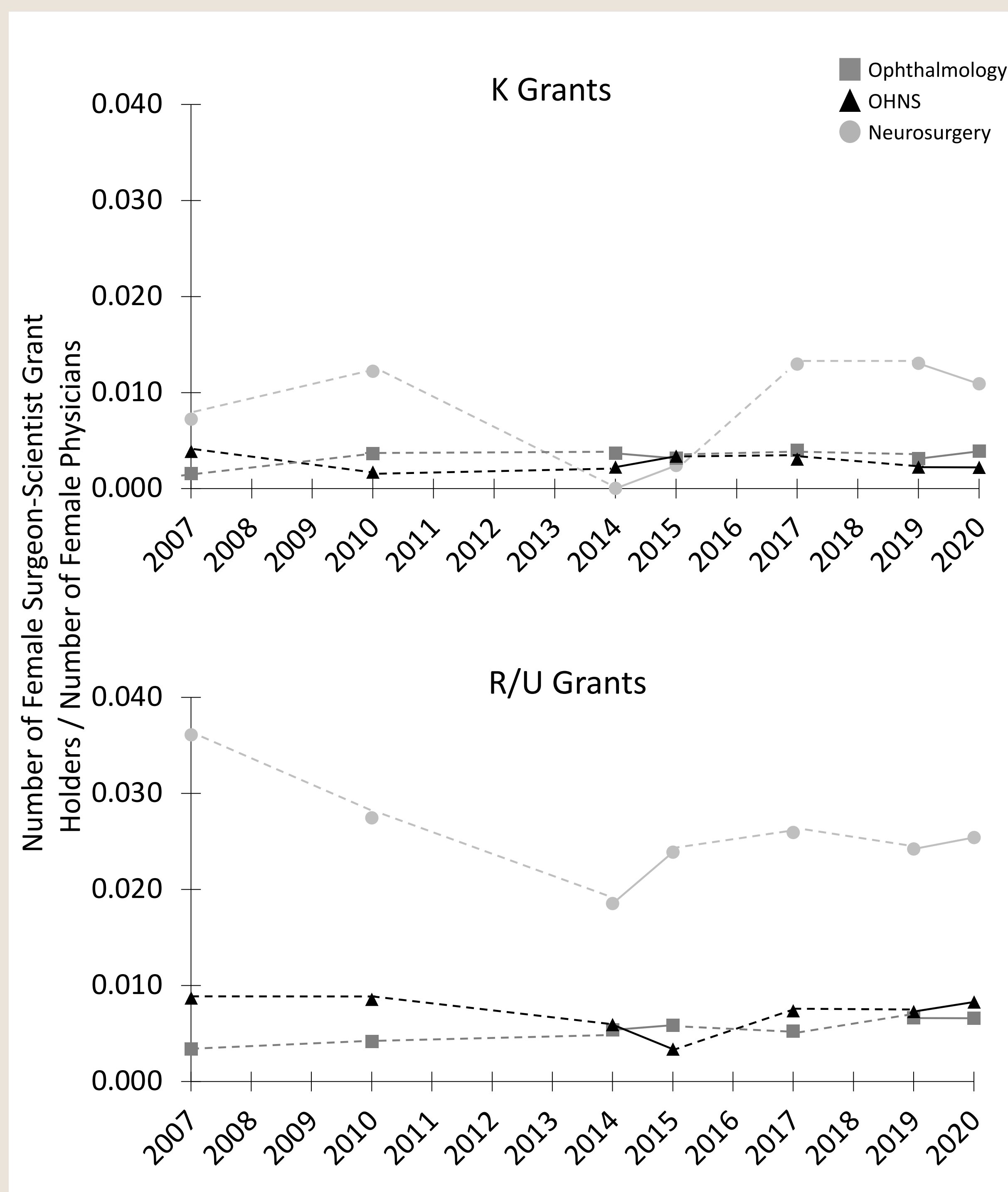


Figure 2. Female Surgeon-Scientist Grant Holders with NIH K Grants and R/U Grants relative to the Number of Female Physicians in Ophthalmology, OHNS, and Neurosurgery. Abbreviations as in Fig. 1.

Results

- All specialties showed growth in the active number of female physicians over time.
- In 2020, number of female surgeon-scientist K grant holders was 4 in OHNS, 6 in Neurosurgery, 20 in Ophthalmology.
- K Grants: OHNS had no significant difference in the number of female surgeon-scientist grant holders compared to Neurosurgery ($p=0.07$) and Ophthalmology ($p=0.53$).
- In 2020, number of female surgeon-scientist R/U grant holders was 15 in OHNS, 14 in Neurosurgery, and 34 in Ophthalmology.
- R Grants: OHNS and Ophthalmology had a fewer number of female surgeon-scientist grant holders compared to Neurosurgery (OHNS, $p<0.001$; Ophthalmology, $p=0.002$).

Discussion

- Our results showed progress in female-surgeon scientists receiving NIH grants, which is consistent with findings from recent literature².
- Female surgeon-scientist representation boosts diversity of perspectives and leads to more innovative and effective medical solutions³.
- Mentorship and sponsorship programs play a crucial role in propelling the careers of female surgeon-scientists, offering vital direction, resources, and pathways to opportunities.
- Institutional policies and practices, such as transparent evaluation processes and initiatives to address unconscious bias, are essential for creating an inclusive and equitable environment for surgeon-scientists.

Conclusions

While OHNS has made progress in female representation, given the metrics of neurosurgery there is still room to grow. To push forward in this area, we can implement the following measures:

- Advocate for continued NIH grant allocation and career development for female surgeon-scientists.
- Prioritize early mentorship and financial incentives to enhance representation in the field.

References

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