

Bridging Boundaries: Post-Doctoral Research Fellow Mentorship in the Virtual Radiology Research Network (VRRN)

Amir Hassankhani, Melika Amoukhteh, Ali Gholamrezanezhad

Department of Radiology, Keck School of Medicine, University of Southern California (USC), Los Angeles, CA, USA.

Introduction

- The Virtual Radiology Research Network (VRRN) is introduced as a response to the need for global collaboration in radiology research and education.
- It aims to enable international medical students and graduates to engage remotely in radiology research projects. VRRN is significant for its ability to incorporate diverse perspectives and experiences, potentially enhancing the quality of radiological investigations.
- It addresses barriers faced by foreign individuals in accessing collaborative opportunities, particularly with prestigious institutions and professors in the United States.
- VRRN aims to overcome these obstacles by offering a virtual platform for participants to contribute to cutting-edge radiology research regardless of nationality or location.

The Dilemma

Foreign medical students and graduates encounter various challenges in participating in collaborative research:

- **Geographical Barriers:** They often face limitations due to the need for physical presence or proximity to research institutions, hindering their full engagement in research activities.
- **Visa and Immigration Challenges:** Complex procedures for visas and immigration present significant hurdles, consuming time and resources and obstructing research participation.
- **Financial Hurdles:** Collaborative research involves expenses such as visa fees, travel costs, and accommodations, which can be prohibitive, preventing access to valuable research opportunities.
- **Limited Networking Opportunities:** They lack extensive professional networks, limiting access to academic and research communities and hindering the search for suitable research partners and mentors.
- **Recognition and Accreditation:** Formal recognition and accreditation are often required for collaborative research, posing challenges for foreign medical students without credentials. Additionally, gaining recognition for contributions may be difficult, particularly for graduates from diverse countries, impacting access to on-site research opportunities.

The VRRN Process

The VRRN has developed a comprehensive process to address the challenges faced by foreign medical students and graduates in participating in collaborative research:

- **Team Formation:** VRRN assembles a team comprising radiology research and clinical faculty members, residents, and post-doctoral research fellows to generate diverse research concepts aligned with VRRN's goals.
- **Project Selection:** The team curates a list of projects through collaborative efforts, offering participants a wide range of research opportunities.
- **Application and Interview:** Applicants submit their applications through an online portal and undergo virtual interviews with the VRRN team to assess qualifications, research interests, and future goals.
- **Trial Assignments:** Successful candidates undertake virtual trial assignments designed to evaluate scientific aptitude, research skills, and proficiency in English.
- **Onboarding and Training:** Accepted participants undergo virtual onboarding and comprehensive training covering various areas such as HIPAA compliance, human subjects research protocols, electronic medical records, and data security.
- **Research Experience:** Participants engage in a virtual research experience for a predetermined period, paired with mentors who guide them through selected research projects.
- **Continuous Support:** Participants receive continuous guidance and support from post-doctoral research fellows as mentors through weekly virtual platforms, ensuring access to necessary resources for research success.
- **Monthly Meetings:** Research groups convene monthly with a VRRN faculty member to brainstorm new projects and discuss ongoing initiatives, fostering collaboration and innovation.

Informatic Infrastructure and Ongoing Program Expenses

- The VRRN employs a robust informatics framework to facilitate collaboration and information exchange among participants. It utilizes virtual meeting software like Slack for remote video conferences and discussions, along with Google Drive and Microsoft OneDrive for Business for data management and privacy.
- VRRN scholars have exclusive access to institutional and library resources, including scholarly databases and academic journals, enhancing their research capabilities.
- Operational costs are managed efficiently to provide high-quality virtual research opportunities while minimizing expenses. This includes minimizing administrative support, relying on voluntary contributions from faculty members and research fellows for mentoring, optimizing existing software and research resources, and managing occasional project costs through pre-established funding sources.

Conclusion

The VRRN presents a comprehensive solution to enhance international radiological research and education. Recognizing the potential of foreign medical students and graduates, often constrained by barriers to prestigious U.S. institutions, VRRN offers a structured framework to overcome these challenges. By fostering talent, promoting mentorship, and embracing diversity, VRRN facilitates meaningful contributions to radiological research. Through efficient virtual collaboration, expert guidance, and access to resources, VRRN empowers participants to excel in their research endeavors, promoting inclusivity and excellence within the field of radiology.

References

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