Cover Story

Smart Diagnostics

462 Abeer Alzubaidi, Jonathan Tepper, Prof. Ahmad Lotfi: Deep Mining for Determining Cancer Biomarkers

468 Alberto Di Meglio, Anna Ferrari, Sofia Vallecorsa: Smart Diagnostics with Wearable Devices: Principles and Applications

472 Gerard Castro, Suzanne Schrandt: Improving Diagnosis Through Technology

476 Jonathan Christensen: A Snapshot of Imaging Technology

480 João Bocas: Role of Wearables in Combating COVID-19

482 Alan Kramer, Dylan Bieber, Prof. Theresa Rohr-Kirchgraber: Influence of Biotin Nutritional Supplementation on Laboratory Testing: Sex and Gender Impact
Junior Faculty Support: How To Do It and Why It Matters

Author: Sherry S. Wang | Assistant Professor | Department of Radiology and Imaging Sciences | University of Utah | USA

Author: Lily L. Wang | Assistant Professor | Department of Radiology | University of Cincinnati Medical Center | USA

Author: Jonathan Revels | Assistant Professor | Department of Radiology | University of New Mexico | USA

An overview of the themes of support from the perspective of junior faculty- the sequence of required processes, the breakdown of these processes and actionable courses that should be taken, both individual and/or institution-based.
Support of junior faculty is an essential catalyst for professional development in the setting of academia. The demand on junior faculty has increased over the years with increase in clinical workload, increase in burnout, inappropriate mentoring/sponsoring and inadequate protected time for research which is important to fulfil promotion criteria (Chetlen et al. 2019; Shaheen & Sandler 2018). Support for junior faculty can be divided into individual based - through mentors and sponsors, and institution-based and it should be emphasised that the success of all faculty is dependent on both types of support.

An institution can benefit greatly from the success of their junior faculties. For example, if junior faculty are recruited, nurtured and promoted (Chapman & Guay-Woodford 2008). This paper explores the themes of support from the perspective of junior faculty - the sequence of required processes, the breakdown of these processes and actionable courses that should be taken, both individual and/or institution-based.

**Initial Assessment**
Junior faculty should be assigned a mentor prior to their arrival at an institution and a date and time should be set for an initial assessment to discuss career goals and research interests. It is important to take into consideration whether the mentor is a good fit for the mentee and vice versa. This initial assessment utilises the mentor’s experience and wider field of view to guide the junior faculty in terms of feasibility and in the creation of realistic goals and bite-size objectives to reach those goals. At the same time, the mentee and mentor should discuss measurable outcomes to the goals proposed by the mentee and the appropriate timeframe within which these goals should be achieved.

A healthy mentorship requires the mentee to adhere to responsibilities; for example, a mentee should not expect authorship of a project if they have not performed their agreed upon duties. Expectations, timeframes, and how one is evaluated should be openly discussed and received in a non-judgmental manner as trust and confidentiality is the foundation of a mentor-mentee relationship.

**Facilitation of Resources**
Institutional resources are instrumental to the success of junior faculty. Resources are not always monetary and can be divided into four categories: general, research, teaching and services, which apply to both personnel and items. The availability of resources should be concordant with the institutional expectations of the junior faculty. For example, if junior faculty is expected to publish heavily on scientific research, besides funding support, they should be allocated the appropriate academic time, facilities and setup where the expected research is performed (research), ability to attend additional courses in terms of utilisation of equipment or extension of knowledge into the subject matter (teaching) and access to research assistants and statisticians (services). As one can see, if any of the resources are deficient, projects fail.

In order to increase opportunities and confidence of the junior faculty member, whenever it is deserved, the department should make junior faculty aware and nominate them for awards, positions, talks on a departmental, institutional and professional organisational level. This is the idea behind “sponsorship” which is different from mentorship with the focus on advocating for, and supporting the career advancement of the junior faculty (Perry & Parikh 2019). While some nominations can be appropriately spontaneous, nominations that require additional time, such as lecture preparation or meeting attendance, should be given with ample notice.

**Mentors-of-the-Moment**
This concept incorporates mentoring, workplace culture and engagement of junior staff (Johnson & Smith 2019). It addresses the problems of a formal mentoring programme where it can be hierarchical, and this may not suit all employees and acknowledges the best mentoring programme can falter under a toxic work culture. Formal mentoring programmes also fall prey to seniors only partaking in the programme in name only, as they have been told to “volunteer” by management. When mentoring is not a part of the daily work culture, formal mentoring programmes will not engage or develop junior talent.

Mentor-of-the-moment embeds mentorship in the work culture and all members of the organisation can be active participants with small daily interactions to help juniors grow. These
interactions are informal and short exchanges with the aim to enhance the self-confidence, self-esteem and sense of inclusiveness in the junior faculty. These frequent micro exchanges provide a solid foundation on which trust, collegiality, sponsorship and mentorship can be built on. Examples of mentors-of-the-moment include acknowledging juniors on their achievements in front of others, asking for their perspective, deliberate check-ins to see how they are doing and offer support or resources when appropriate, give and take feedforward, ensure transparency, clarity and accountability.

This particular mentoring style can overcome potential roadblocks in mentorship when the mentor and mentee are of different genders or races. This is especially true in the setting of men being reluctant to initiate formal mentorship with women, as they do not want to be seen as someone who spends a lot of time with the opposite sex or people who avoid cross-race mentorship relationships as they worry whether they would have the culture competence to facilitate a successful mentorship.

**Feedforward**

We need to move away from “feedback” to “feedforward.” The concept of “feedforward” is rooted in a mentor’s understanding of the mentee’s goals and focuses on the goals and expectations personalized to the junior faculty member rather than following what may merely be arbitrary standards (Kruse 2012).

The theory of feedforward encourages 360 degrees perception of the mentee via informal surveys from those who work with and around the mentee. The use of these surveys has the potential to decrease bias and discrimination, and the transparency of their use can help decrease any potential negative emotions by the mentee, allowing for a more open dialogue and experience. To-and-fro evaluations may also be useful between mentors and mentees, whereby there is an open means of mentee evaluation that can occur without a particular timetable. This allows the junior faculty to take the opportunity to correct any issues as they arise which differs from traditional feedback methods.

**Reduce Impediments**

It is vital to avoid the “catch-22” situation where the junior faculty may find it difficult to say “no” to a senior faculty. There should be an honest and upfront conversation between the mentor and mentee when volunteering them for committees and projects with regards to how this can contribute to their goals and road to promotion, and to ensure that there is no exploitation (Baerlocher et al. 2011).

The other situation which can arise in institutions with a heavy emphasis on seniority, is that of potential negative consequences which leads the mentee to lose time, energy and even money, or the mentee does not receive credit for their work (Baerlocher et al. 2011).

Lastly, all good work achieved by the junior faculty should be acknowledged and rewarded in proportion of their achievements. Junior faculty should also acknowledge and show appreciation to their mentor.

Engaging junior faculty members early on is essential to ensuring their retention and institutional longevity, thereby allowing them to continue to elevate an institution through scholarship and teaching. However, junior faculty still needs to take ownership and be accountable for their own career pathway and of the opportunities which they have been given.

**Conflict of Interest**

The authors declare no conflict of interest. None of the authors have or had manuscripts published on this subject.

---

**REFERENCES**


Kruse K (2012) Stop giving feedback, instead give feedforward. Available from forbes.com/sites/kevinkruse/2012/07/19/feedforward-coaching-for-performance/#1f9b0a4a235d
