Conquering burnout: resilient faculty

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- ➢ Currently 17 Faculty FTEs (tenure-track; partial funding from State of Nevada; 13 involved and receiving partial salary support from extramural funding)
- ➢ Currently 9 Research Track Faculty (100% from grants)
- ➢ Administrative faculty 1 (runs cytometry/FACS Core lab)
- ➢ NIH funding in 2014 was $10.5 million; departmental peer reviewed publications run about 50-60 per year)
- ➢ Teaching in medical school (Physiology, Cell Biology, Anatomy) Block curriculum; won best basic science department from graduating medical classes for past decade.
- ➢ Participate in a joint graduate program with Department of Pharmacology – Cellular and Molecular Pharmacology and Physiology (2-4 students per year)
- ➢ Space about 20,000 sq ft
- ➢ State funded classified staff = 4
- ➢ Operate a for-profit surgical demonstration lab
- ➢ Current Chair has been in position for 27 years

Guiding principal

Chairs that have hired people should believe in these individuals and be willing to take an interest in their success.

Sometimes managing an academic department can seem a little futile
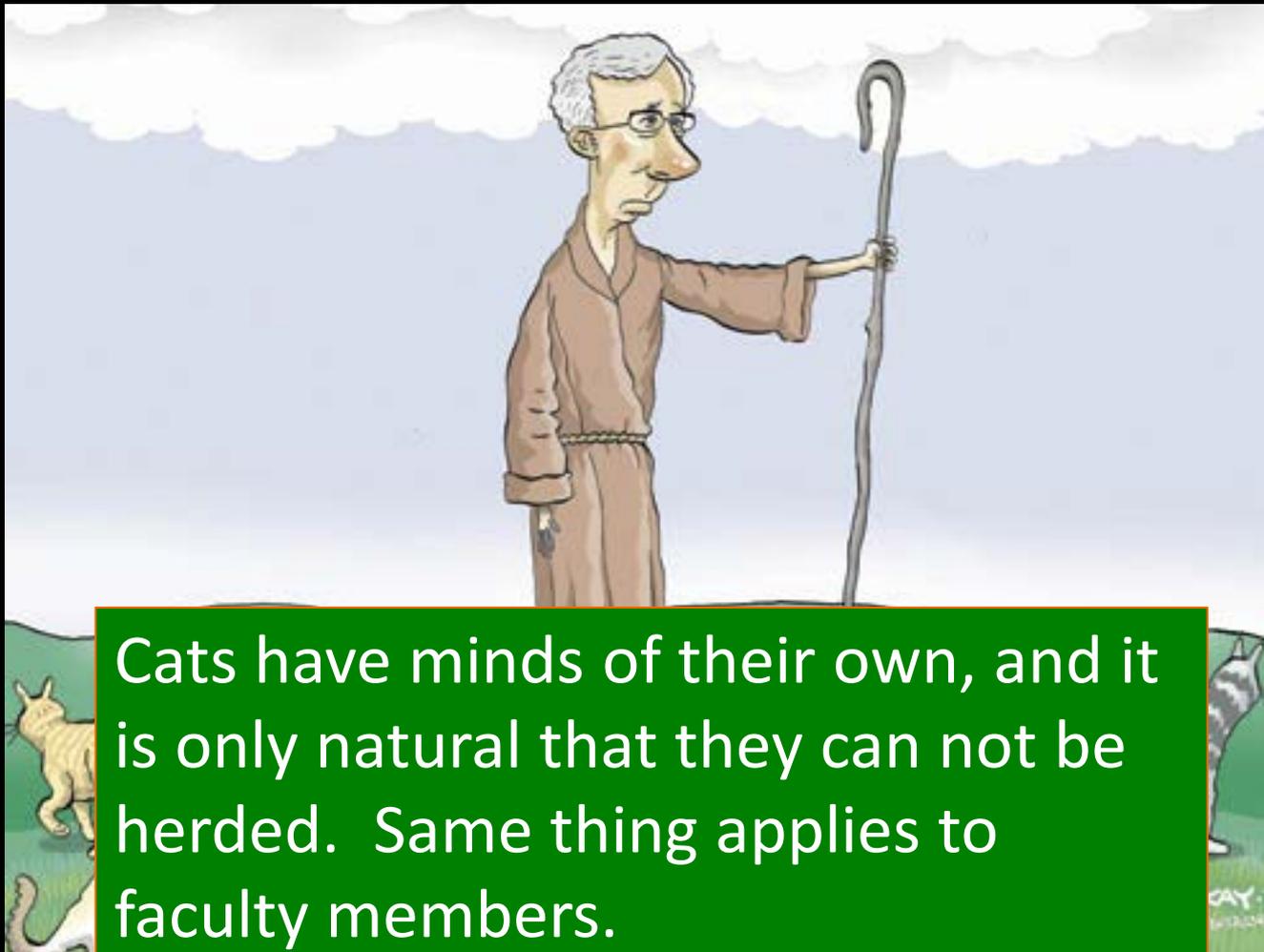
Cats have minds of their own, and it is only natural that they can not be herded. Same thing applies to faculty members.

Departmental meetings

➢ Sometimes bylaws require departmental meetings and even set a schedule for meetings.

➢ Sometimes departmental meetings are needed to make major decisions about space, core equipment or curriculum.

➢ What kinds of topics should go on the agenda for Departmental Meetings?

➢ Personal observations are that any issue discussed in departmental meetings becomes more difficult to resolve, as individuals express and defend their positions.

➢ Ask yourself if your departmental meetings are building collegiality or disrupting relationships.

Departmental meetings

➢ Purpose of departmental meetings: Attempt to educate faculty and Chair on state of the department, budgetary issues, positions/recruitment, teaching issues, research opportunities, etc.

➢ What group is included? Faculty, research faculty, administrative and technical staff?

➢ Anticipate and solve problems; delegate responsibility and authority…fairly?

Basic ideas of manage by walking around (MBWA)

➢ Make MBWA part of your routine.

➢ Don't bring an entourage (one-on-one informal discussion is most effective). I prefer going to a faculty member's office to meet with her/him rather than them coming to mine.

➢ Visit everybody. Hanging out with only a select crew builds divisions.

➢ Ask for suggestions, and recognize good ideas. Ask for suggestions on how to improve things or about new ideas they might have for collaborations.

➢ Follow up with answers. If you don't know the answer, get back to the person when you do.

➢ Don't be critical on the spot; think about problems and wait for teachable moments.

Recruitment

- The goal of having resilient faculty begins at recruitment
- Philosophies of recruitment differ in different institutions. Best science? Building toward a core of excellence? What's practical? Have you read your institutional goals/potential correctly?
- Are post-docs from top labs with a few Science and Nature papers always the best choice? Have to be checked out carefully.
- Sometimes candidates from smaller labs have had more opportunities to think independently and develop fundable programs.
- Identifying and developing leadership. Rare, but important for departmental development and esprit de corps.
- Identifying true collaborative investigators. Some of the best science transcends capabilities of a single lab.
- Look for candidates with sound Emotional Intelligence.
- Be extremely clear about the environment of the department and what the candidate's expectations should be if she/he takes a position.

Chair's job in recruitment

➢ Enunciate your vision for the department over the next 5 years clearly. Let the candidate know where you and the institution plan to go so he/she can decide if they wish to go along for the ride.

➢ Provide adequate resources to allow a new faculty member to launch their career. Assess what is needed and what is available accurately.

➢ Be true to your word; don't renege on promises.

➢ Advise junior faculty from day one about taking on unsuitable and unproductive duties.

➢ Protect junior investigators early on from too much teaching and spending time on too many committees.

➢ Make it abundantly clear that the clock is ticking toward a tenure decision. Progress reports and candid evaluations of progress.

➢ Help the candidate's partner find suitable opportunities/employment, if possible. Share your network.

Thematic research – building something of pride for the faculty

➢ Recruiting toward research themes to build Centers of Excellence. Faculty take pride in being part of a recognizable Center.

➢ Faculty within a thematic focus have lots of opportunities for collaboration and incorporation of new of technology into their own research.

➢ Opportunities for overlap and questions about credit. Program Leader needs to know how to adjudicate disputes.

➢ If someone leaves the group or department, how are decisions of division decided.

Diversity and cultural issues

➤ Advantages of diversity in an academic department are in providing a more eclectic environment.

➤ People from diverse backgrounds have different views and interpretations of data and their environment – valuable contributions to the whole picture.

➤ In science cultural diversity is of great value because of the way people of different cultures approach problems.

➤ People at all levels in an organization and from all backgrounds and cultures need to feel comfortable about expressing their ideas.

➤ Some challenging problems arise due to cultural differences between faculty and staff.

Atmosphere of respect

- Hourensou - frequent reporting, touching base and discussing.
- Each person has the potential of making important suggestions and problem solving.
- Goal is to create an environment of support and agreement (harmony) for decisions made by the ranking manager once he/she has reviewed the ideas of the group.
- Make fairness and honesty; teamwork for the common cause; uniting efforts for improvement; courtesy and humility guiding principles in making decisions (from Konosuke Matsushita).

Advising junior faculty toward success in an academic career

➢ Seek expertise in something you like and for which you have aptitude.

➢ Focus your attention on doing the science.

➢ Choose the correct project for your ability and technical capabilities available (i.e. important, technically possible and not competing with labs with 19 post-docs).

➢ Work to develop Emotional Intelligence; learn to communicate effectively with people, don't burn bridges; build collaborative network.

➢ Understand how clinical investigators think and what goals they have.

➢ Talk to people in other fields, don't get too limited in your sphere of interactions.

Early and sustained mentorship

➢ Great to have mentoring, but overrated as a requirement. Many scientists are inherently individualists and <u>seek their own path</u>.

➢ Teachable moments. As in all education, the best opportunity for mentorship comes when it is requested.

➢ Identify real mentors – understand who it was and why certain people had extraordinary impact one's career; not just people putting in the time.

➢ People depending too much on mentors may lack fundamental qualities that make them exceptional scientists.

➢ Supporting travel and workshops for junior and retraining faculty. Sabbaticals are great, but fewer people can spare the time for an extended time away from their labs.

➢ Find new roles for mid-level & senior faculty that are showing signs of burnout – learn to fight your troops effectively!

Grant writing – the gorilla in the closet

➢ One of the largest obstacles to success in science is obtaining and sustaining funding.

➢ 'If you build it, they will come' (2002-2007 $7.4 billion spent in building new laboratory space)

➢ …. and come they did. Doubling the NIH budget launched too many lower tier investigators into the role of PI.

➢ More money (meaning more grants) is required just to keep labs going, and more people are now competing for those grants. The net result is that success rates have plunged. For the entire NIH, rates of funding have dropped from over 30% to just above 20%; for some institutes within it, success rates have dropped to the area of 15%. (First submissions dropped from 20% to 8%)

➢ Redirection of large portions of the NIH budget into sociological and 'translational' research is having a negative impact on basic science and discovery – nevertheless, this is our ecology and we must adapt.

➢ Pressure on grants is probably a contributing factor to the disturbing increase in irreproducible results (Nature special collection).

Ways to enhance grant success

➤ Recruit clever and industrious investigators.

➤ Improve departmental technological capabilities.

➤ Encourage links with excellent clinical collaborators.

➤ Encourage faculty to simplify presentation and strive for clarity in grants. Clear cartoons to demonstrate concepts, specific aims and techniques.

➤ Encourage group review of specific aims at initiation of the grant writing.

➤ Encourage faculty to read each other's grants critically.

➤ Employ outside editors to improve language and style.

Recruiting students and post-docs

➢ Help junior faculty members recruit students and post-docs. Is it better to go to a big-name lab or to a smaller lab where more independence can be developed.

➢ Students should look for a lab where they can work on a novel and interesting project. You hired new faculty members for the same reason. Connect these people.

➢ Students should go somewhere it is possible to be independent and where they might get <u>noticed</u> as someone that is doing something interesting and important.

➢ Go to a lab where there is good intellectual exchange.

➢ Smaller labs might allow you to learn many things rather than just being a tiny part of a huge machine.

Publication

➢ Faculty need peer-reviewed publications to attain funding and accomplish promotion. Most institutions still maintain an up-or-out policy, so for new faculty members the time to their tenure decision is short.

➢ Junior faculty coming from prominent labs often have an unreasonable expectation that they are going to publish only in high impact factor journals.

➢ "Where observation is concerned, chance favors the prepared mind" (Louis Pasteur); Where biological research is concerned, chance favors the lab that survives (Kent Sanders).

➢ Build your lab; sustain your efforts; maybe chance will favor you, and you can achieve the high standards you profess.

➢ Use of citations as a means of evaluation.

Over the hump: Midlevel investigators and "The Wall"

➢ Sustaining funding very difficult for many.

➢ One of the biggest tests in one's career is grant renewal – Struggling with grant renewal can completely reverse career trajectory - arguable that grant renewal should be an important factor for granting tenure.

➢ Multiple grants insure sustained funding for the lab; difficult to obtain and sustain.

➢ Developing Program level funding can help to develop leadership; centers of excellence and shared research resources. This can enhance funding potential of multiple investigators.

➢ Provide opportunities that help develop full potential. Again outside courses and workshops should be considered.

Holistic development

➢ Development of the whole person, taking into account mental and social factors, rather than just evidence of scholarly productivity.

➢ Relationship between science and family; balance over the decades; not necessarily a weekly experience.

➢ Help faculty members become integrated personalities – find meaningful/satisfying work, take responsibility for outcomes, find ways to be creative and innovative; discover how to sustain creativity through adversity.

➢ Help faculty members learn how to manage people and resources effectively. Running a lab is analogous to running a small business.

Adjudication of problems

➢ Bring parties together to discuss, shuttle diplomacy is clumsy.

➢ Ask what each wants from the solution.

➢ Ask what they would give up for peace.

➢ Attempt to clearly define problem, and confirm that the parties agree on the definition.

➢ Don't be afraid to spend money to accomplish a peaceful solution.

➢ Ask whether your decision is satisfactory and how they would alter the decision if they were in your position.

➢ This group problem solving approach hopefully can accomplish a solution suitable to most parties and can help develop leadership.

➢ Avoid formal grievances if possible – very divisive.

Sub-clinical
*narcissistic personality disorder

- Having an exaggerated sense of self-importance
- Expecting to be recognized as superior even without achievements that warrant it
- Exaggerating your achievements and talents
- Being preoccupied with fantasies about success, power, brilliance, beauty or the perfect mate
- Believing that you are superior and can only be understood by or associate with equally special people
- Requiring constant admiration
- Having a sense of entitlement
- Expecting special favors and unquestioning compliance with your expectations
- Taking advantage of others to get what you want
- Having an inability or unwillingness to recognize the needs and feelings of others
- Being envious of others and believing others envy you
- Behaving in an arrogant or haughty manner

Although some features of narcissistic personality disorder may seem like having confidence, it's not the same. Narcissistic personality disorder crosses the border of healthy confidence into thinking so highly of yourself that you put yourself on a pedestal and value yourself more than you value others.

*Diagnostic and Statistical Manual of Mental Disorders (DSM-5)
In red are facets retained from the clinical syndrome in sub-clinical manifestations.

Causes of narcissistic personality disorder

Causes of narcissistic personality disorder are unknown. As with other mental disorders, the cause is likely complex. Narcissistic personality disorder may be linked to:

Mismatches in parent-child relationships with either excessive pampering or excessive criticism (Mismatches in mentor-student relationships with either excessive praise relative to others or excessive and embarrassing abuse)

Genetics or psychobiology — the connection between the brain and behavior and thinking

MAYO
CLINIC

When faculty members leave the Department

➢ Big investments may be lost – your reaction is a potent message to others.

➢ Are you mainly in the career building business or in the utilization of canon fodder business?

➢ Generosity has it's rewards.

➢ Continuing collaborations, exchanges of students and post-docs. The faculty member's new department can become an extension of your department's program.

Senior investigators
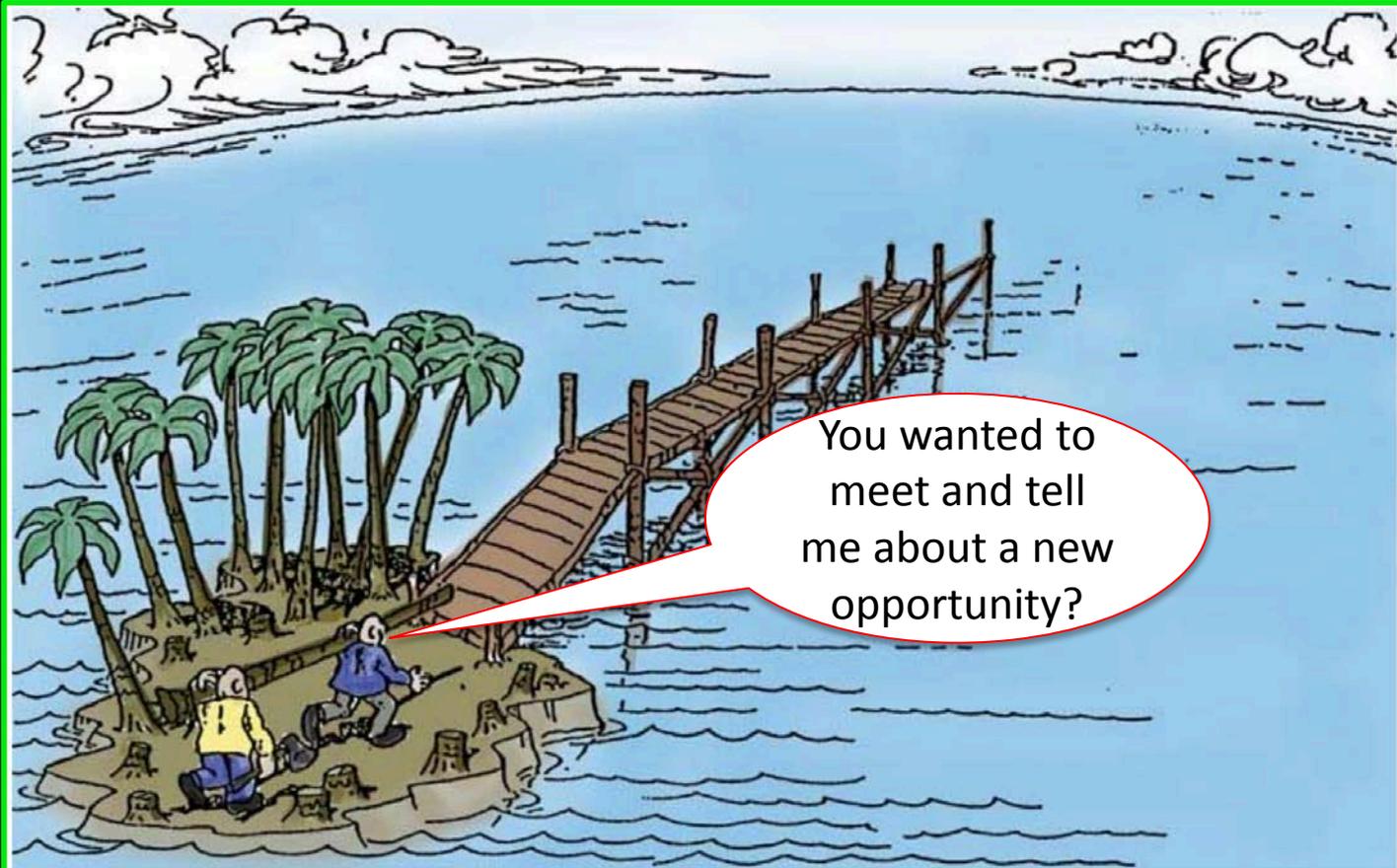
Practice of science changing

- ➢ More bureaucratic, more things to do
- ➢ More international, more interdisciplinary,
- ➢ More need for exploration of big data sets.

Big trends that might be in play

- ➢ Fusion of disciplines occurring; future of small basic science departments?; investigators should be encouraged to expand their scope of interactions; ACDP should consider morphing!
- ➢ broader view of what faculty are – great comments from Erica.
- ➢ collaborators that bring essential skills to projects should be as well considered/rewarded as the senior author/PI – days of the rugged individualist are passing.
- ➢ Will tenure exist in 10-20 years?

Maybe with the proper incentives and ideas ... Da cats will follow!

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➢ Elizabeth Blackburn, Daniel Shechtman & Jack W. Szostak. Persevering in Science: Advice from Nobel Laureates. Science Webinar Series. AAAS Custom Publishing Office. 2015.

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