

**Animal Scientists of the Future:  
 Embrace change, challenges and opportunities**

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**Which of these describe your perspective on a career in Animal Sciences?**

- "I love working with animals and want a career that allows me to do that."
- "I value the tradition of animal agriculture and want to play a role in ensuring its sound and sustainable future."
- "I really love what I am doing now and plan to focus my career in this research area. You can check in 5, 20 years and this is what I will be doing."
- "I feel prepared to contribute to the science of my discipline and plan to do so for the rest of my career."
- "I see emerging issues and opportunities and I want to contribute."



**Why embrace change?**

- "Change happens....."
- How "we" respond is an important key to success.
- Academia
- Business
- Society
- Personal development and satisfaction


**Change is a good thing....**

- Change provides challenges and opportunities
- Be ready to capitalize on them.






### Example: Changes in Animal Science





- Clientele demographics
  - Who do animal science departments serve? (students, producer groups, society?)
  - Whose research priorities get addressed?
- Changing funding patterns for higher education





### Changes in - Clientele demographics

- Production
  - All/select species, large/small operations, non-traditional/niches?
- Allied industries
  - Traditional – (Feeds, pharmaceutical, reproductive services, genetics/breeding, USDA, etc)
  - Non-traditional – (Environmental agencies, food safety, animal well-being, niche markets)

### Changes in - Clientele demographics

- Students
  - With what career focus and curricular requirements?
    - Production agriculture, business and allied industries, vet school, small/companion animal, exotic, equine
  - Should we/can we effectively serve all?
    - If not which ones and who chooses?
- Public / Society
  - Do we have a responsibility to serve the general public?
  - How and to what extent do we address controversial issues?
    - Animal housing and wellbeing, GMO's, food safety, etc.

### Changes - Clientele demographics

Whose Research Priorities get addressed?

- Limited resources available
- Priorities of state/regional/national importance
- Stakeholders
- Gifts/grants




### Changing funding patterns

- Reduced state and federal funding support requires new ways of accomplishing goals and implementing plans
  - Those with innovative ideas, entrepreneurial skills and motivation will be sought and succeed
- Most academic positions will require external funding
  - “Outside the box” thinking will be important
  - Be flexible
  - Engage others outside AS to help solve problems
    - They don’t know “it cannot be done that way....”



### One thing that hasn’t changed in academia....

- You must be an excellent scientist who is technically skilled and publishes scholarly work in a timely manner



### Attributes of a successful Animal Scientist

- Ability to thrive in a changing environment
- Value interdisciplinary opportunities and relationships
- Willingness to “think outside the box”
- Ability to communicate science and its implications
- Ability to innovate (entrepreneurial skills)



### Importance of teams and team players

- Team players are needed in all areas
  - Service and department stewardship
  - Responding to researchable questions
    - Difficult issues require multidisciplinary solutions
    - The future is fewer individual investigator programs and more multidisciplinary, multistate/global, team efforts.
    - Grants in the future – fewer of them, but bigger
- Many funding priorities require integrated proposals
  - USDA – Integrated proposals now REQUIRE:
    - “...any combination of research, education, and extension activities, with the provision that the project include at least two of the three stated components.”



### Effective team players

- Listen, Learn, Pay your dues
- Recognize that most of the important problems of tomorrow will not be solved by your lab but position your lab to be an essential component of a team to help solve them.
- Deliver what you promise
- Respect and value others on the team



### Capitalizing on Challenges and Opportunities

- Be forward thinking
  - What worked yesterday may not work tomorrow
- Be a lifelong learner (it's more than just a cliché)
  - What you are doing today, may not be needed or relevant tomorrow.
  - Keep yourself relevant, cutting edge
  - Learn from others with diverse backgrounds
- Don't get discouraged – keep trying
- Go the extra mile
- Establish good collaborators and mentors
  - Learn from them (writing skills, people skills, what to prioritize, when to say no, etc)



### Is this YOU?

- As a well trained graduate, I am excited to begin my career in animal sciences and enthusiastically look forward to responding to the changes, challenges and opportunities that are presented along the way.
- If so, you are started on the right track for an exciting, productive and successful future.



Be Prepared and Expect ---  
 an exciting and rewarding career!