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 well-being, GMO’s, food safety, etc.

Changes - Clientele demographics

Who are the Research Priorities being 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 cliche)
  – 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!