Non-traditional career pathways for animal science students

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Traditional careers for animal scientists
Times they are a changin’

Perspectives and learnings from my career path to date.

Have you considered careers in.... ?

Preparing for happiness and a successful career

Where do I look for these jobs?
Traditional careers for animal scientists

- Domestic animal production and management, research, sales, service, business, and education.
  - Producers, farms
  - Feed and supplement companies
  - Academia
  - Equipment companies
  - Agriculture advocacy - councils, 4H, extension, etc.

- Veterinary medicine requiring further education.
Some of the global changes impacting animal science

- **Biotechnology** - advances change efficiency, production practices and requirements, and human meat consumption.

- **Consumer demands** - “green”, “environmentally friendly/sound practices”, “healthy”, etc.

- **Governance** - requirements for traceability of foods/feeds, increased food safety legislation, supplement/additive restrictions, etc.

- **Resource competition** - biofuels, land allotment, water availability, etc.

- **Population shifts** - Growing human population with shift in age, location, and affluence is shifting the global requirement for protein foods.
My path to date

NCSU
BS - Animal Science
Minor - Nutrition

UGA
MS - Foods & Nutrition
PhD - Foods and Nutrition
Dietetics coursework & internship

NIH, NIDDK
Postdoctoral Research Fellow

USDA, ARS
Research Technician

ADA
Registered & Licensed Dietitian

The Coca-Cola Company
Associate Scientist
Senior Scientist

The Coca-Cola Company
Associate Scientist
Senior Scientist
The Coca-Cola Company?

● Largest non-alcoholic beverage company
  - Carbonated beverages, juices, juice drinks, mixers, waters, sports beverages, energy drinks, teas, dairy, coffees, beverage concentrates
  - 3,300 products
  - 500 brands
  - 14 billion dollar brands

● 92,800 associates globally

● Operations in over 200 countries

● 1.6 billion servings consumed daily
Global Nutrition Research

- **What is my role?**
  - Identify and evaluate potential ingredients and delivery technologies to improve the health and wellness of consumers

  - Meet suppliers and scientists, conduct literature reviews, develop product protocepts, conduct pre-clinical evaluation, plan and sponsor clinical trials

  - Coordinate with other scientists, regulatory affairs, product developers, claims substantiation groups, purchasing, legal, marketing, brand divisions....both locally and globally
Scientific Functional Expertise Common in Food Companies

- Biochemistry
- Organic Chemistry
- Flavor Chemistry
- Process Science
- Analytical Chemistry
- Microbiology
- Sensory Science
- Platform Integration
- Clinical Evaluation

- Product development
- Science & regulatory affairs
- Sensory evaluation
- Food safety, QA/QC
- Materials and packaging Science
- Process engineers
Potential strengths of an animal science background

- Animal production process involves breeding/genetics, reproduction, growth, feeds and environment, raw products, consumer products

- Your broad education provides basic understanding of
  - various scientific and agriculture arenas
    - soils, crops, genetics, microbiology, biochemistry, consumer foods (milk, meat), molecular biology, etc
  - management
    - integrative processes
    - implications of change
    - communication
Your strengths applied to alternative locations

- Global organizations with interest in food security
  - United Nations (Food and Agricultural Organization, World Food Program), USAID, WorldBank, PeaceCorps, humanitarian organizations, NGOs.

- Example:
  - Livestock project manager- CNFA
  - Animal husbandry- PeaceCorps
  - Project coordinator, animal health- FAO
  - Livestock coordinator, project manager- Heifer Int.
Your strengths in new areas

- Agriculture & Natural Resources
- Environmental Sciences
- Law (Animal Welfare, Environmental)
- Psychology
- Science Technology
- Customs and Inspection services
Your strengths applied to alternative settings

- Alternative corporate settings:
  - food ingredients (may differ from feed suppliers), pharmaceutical companies, military, civil service, etc.

- Examples:
  - Veterinary food inspection specialist
  - Medical science liaison
  - Regulatory affairs
  - Microbiologist
  - Quality manager
  - Research scientist
  - Food safety auditor
  - Plant manager
Capitalize on your individual strengths and likes

- Consider your preference for:
  - Prevention vs treatment,
  - Production vs pet vs exotic,
  - Training vs production vs conservation
  - Location, institution size and type
  - Advancement potential compared to your intentions
  - Quality of life
  - Pay and benefits
Example

- You enjoy traveling, don’t want to do lab or animal work anymore, are detail-oriented…
  - Have you considered being a clinical research associate?

Job duties
- developing, writing, presenting trial protocols;
- designing data collection forms;
- managing ethics and regulatory authority applications and approvals;
- working with study centers and staff;
- data verification, filing, collating, archiving;
- writing reports and manuscripts.
Your strengths applied to alternative species and careers

- Experience conducting trials in production animals may be useful in conducting human clinical trials.

- Frequently listed positions
  - Biostatistician
  - Study manager/coordinator
  - Clinical data analyst
  - Clinical trial monitor
  - Clinical trial auditor
  - Research site manager
Example

- You enjoy applying science to the food/feed industry and would enjoy an office environment with a variety of people…
  - Have you considered science in the **food industry**?

- Job types:
  - Technical sales
  - Statistician
  - Sensory
  - Nutritionist
  - Project management
  - Product development
  - Procurement, supply chain
  - Regulatory affairs
  - QA/QC
  - Technical advisement to business.
Final thoughts...

Like everything else, the animal science field evolves and we must adapt and evolve to be successful.