# Mickey A. Latour

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## Appointments

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|---|---|---|
| Professor, *Animal Science, Food and Nutrition* | Southern Illinois University | 2018-present |
| Dean, *College of Agricultural Sciences* | Southern Illinois University | 2012- 17 |
| Associate Dean, *Extended Campus and Director of Distance Learning* | Purdue University | 2010-12 |
| Professor, *Animal Sciences* | Purdue University | 2010-12 |
| Associate Professor, *Animal Sciences* | Purdue University | 2002-09 |
| Assistant Professor, *Animal Sciences* | Purdue University | 1997-02 |

## Education

| | | |
|---|---|---|
| National Institutes of Health (NIH) Fellow | Washington University School of Medicine, St. Louis, MO. *Division of Nutrition and Lipid Disorders (Investigated rare lipid disorders and hypobetalipoproteinemic kindreds*) | 1995-97 |
| PhD | Mississippi State University, *Animal Physiology* | 1992-95 |
| MS | Mississippi State University, *Animal Physiology* | 1990-92 |
| BS | Southeastern Louisiana State University, *Major Animal Science and minor Biology* | 1985-90 |

Professor, Animal Sciences, Food and Nutrition 2018-present

Major initiatives:

1. Designing dietary supplements to reduce inflammation including and not limited to natural foods, Cannabidiol (CBD), etc.
2. Developing a Saluki Brand Bratwurst, https://news.siu.edu/2019/10/101419-taste-test-for-siu-themed-bratwurst.php
3. Co-Chair Faculty Senate Governance Committee

Dean, College of Agricultural Sciences (2012-2017)

The College of Agricultural Sciences (COAS) is a comprehensive (BS, MS and PhD) public research university located in Carbondale, Illinois. SIU-Carbondale is the flagship campus of the Southern Illinois University system, and is classified as an "R2: Doctoral University – Higher Research Activity" by the Carnegie Classification of Institutions of Higher Education; SIUC shares a similar Carnegie classification with schools such as Auburn, University of Alabama, etc.

The college has approximately 900 BS, 75 MS and 20 PhD students with an operating budget of nearly 6 million. Additionally, COAS operates nearly 2000 acres of crop and forestry properties.

Major Challenges and Outcomes

Challenges

1. Year over year budget cuts and the need to develop alternative revenues while expanding hands-on research opportunities for students and faculty through private partnerships.
2. To strengthen student success metrics
3. To grow distance learning and online programs
4. To strengthen research

Outcomes

1. **Led the development of "Ideas to Investigation or "i2i**." This program provides distinguished educational pathways for undergraduate students through private funds. The i2i students participate in a hands-on investigation of a research problem that is defined by an industry partner and faculty advisor. At the core of i2i, students are expected to: a) refine their problem solving ability; b) understand the importance of planning and paying attention to detail; c) learn what it means to execute a project; d) improve their written and oral communication skills; and f) strengthen their analytical skills, including application of mathematic principles. Approximately $325,000 has been secured to fund this initiative through private funds since 2012.
2. **Strengthening Student Success:** Led the implementation of professional advisors within the college. The role of advisors is to work closely with students on planned degree pathways, course articulation, sequencing of courses, etc., and faculty serve in a mentoring role. The 4-year graduation and retention rates are ~80% and 20% higher than campus average, respectively. The table below reflects changes in undergraduate performance over

the past 7 years within COAS.

| | 2010 | 2017 | Change |
|---|---|---|---|
| **Grade Point Average (GPA)** | **Percentage of students** | | |
| 4.0 GPA | 2.01 | 5 | +148.8% |
| 3.5 GPA or higher | 23.8 | 31 | +30.2% |
| 3.0 GPA or higher | 48 | 57 | +18.75% |
| Overall GPA | 2.91 | 3.07 | +5.4% |

3. **Led the development of "Elevating Research**. This initiative was created through collaboration of COAS with the colleges of Science and Engineering at SIU. The spirit of this initiative was to bring together investigators with similar interests and provide some seed funds for development of new collaborations and to generate new data for grant opportunities. The program is entering the 3rd year. Using a 7-point Likert scale, we have determined that participating faculty feel strongly that the program delivers high value and provides a pathway to bring together like minds from across the campus, a situation which may not have occurred otherwise. Additionally, scientists who participated exhibited a high number of grant submissions, new collaborations, and grants funded as part of this program, including and not limited to federal funds.

   **Federal Grant Opportunities:** Led taking a group of faculty to Washington, DC to meet with programmatic leaders in USDA to understand what options/opportunities would be forthcoming as well as to learn about opportunities to be on a review panel. A number of faculty members ultimately got onto federal review panels and coupled to the Elevating Research, submitted various federal grants applications some of which were successful in securing federal funds.

4. **Led the development of Fall Festival**: The overarching goal of Fall Festival is to create a dynamic event which brings people to the college. Fall Festival is now entering the 4th year and has been highly successful in developing great partnerships between high school agriculture teachers, FFA advisors, secondary school administrators and other faculty, SIU faculty and staff, local community and businesses, and generally across the university.

   The major Fall Festival events which occur are as follows: a) Alumni from the college can be selected for awards (three categories of young, mid and late career); b) FFA students (nearly 700 in attendance) participate in hands-on learning activities with COAS faculty; c) The FFA students who participated are asked which areas of study they want to learn more about and then get exposed to those colleges; d) all prospective students are scheduled for an SIU basketball game, typically in early January, so that they can inquire about college during an exciting campus event.

5. **Led the development of online and summer school courses.** The goal was to increase both access to courses for students and concomitantly bring in new revenues for the college, while improving academic quality of the courses offered. These developments

have benefited both students and faculty.

| | Summer Courses | Spring/J-Term Courses | Fall Courses |
|---|---|---|---|
| **2010** | 658 | 322 | 294 |
| **2017** | 1261 | 1657 | 1233 |
| **Change** | +91% | +414% | +319 |

6. **<u>Led the development of a new Summer School Model, Summer 2013</u>:** In brief, I was selected by the Chancellor and appointed "Deputy of Summer School" to design new pathways for summer school and Winter courses ("winter" being the period between December 15 and January 15).

Major outcomes:

a) Led the development of portfolio planning for colleges as well as budget planning. The overall growth in online enrollment for summer is predicted to surpass on-campus enrollment this coming summer.
b) Led the development of Open Campus: The concept is to expand access to courses and thus reach a broader audience (domestically and internationally). In order to achieve this goal, I led the development of a new open campus model ultimately named ***"Access SIU"***. In brief, individuals are permitted to attend/take a course at SIU, similarly to anyone seeking a degree, although they are not officially "degree seeking individuals." This approach allows individuals to take courses, establish a transcript, demonstrate they can do the work and, if wanted, ultimately apply for admission to the university on the basis of their work.
c) **Credential Information**: Coupled to the Summer School initiative and the Open Campus model, I led the conversation to shape credentialing information more strategically across the SIU campus. Across the globe, there are many places working swiftly on how to credential information. An approach to get individuals to SIU would be to develop credentialing pathways through Access SIU that adhere to the quality/rigor we expect at SIU. The advantage of "test out" resides in the fact individuals can study anywhere, such as a **massive open online course,** but have an opportunity to establish SIU credit by exam to demonstrate knowledge through a self-supporting platform.

## <u>Associate Dean, Extended Campus (2010-2012)</u>

At Purdue University, I served as the Associate Dean for Purdue Extended Campus and Director for Distance Learning (75% appointment) while maintaining an active research program as Full Professor (25% in the College of Agriculture) with an active research program in the area of lipid metabolism. In 2012, Purdue University had approximately 38,000 students with approximately 13,000 (7,500 taking campus-based distance courses and another 5,500 in distance learning programs). Overall, distance learning generated approximately $15,000,000.

Major Oversight:

1. Development of DL budget models which supported growth of courses and programs.
2. To grow online enrollment for students at Purdue University, especially where courses were oversubscribed and/or being handled through Indiana partner institutions.
3. Direct oversight of online degree programs, individual courses, certificate programs, correspondence programs, and launch of strategic initiatives.

Outcomes

1. Led the development of online courses (400% increase) for those oversubscribed and/or being offered/supplied by Indiana partnering institutions. The move to accelerate online growth within Purdue vs. outsourcing saved approximately 1 million annually.

2. Oversight for the following programs: Executive MBA, Agribusiness MBA, Technology MS degrees, Evening Courses, Online Veterinary Technology Degree, Teacher Certificates, Teacher Professional Development Programs, Director of the Purdue Extended Learning Center.

3. Led the discussion on development of new programs with contributing partner. In these conversations, two additional programs were launched, Strategic Communication and Curriculum Instructional Design.

**Administrative services**

<u>At Purdue</u>

1) Panel member on USDA Grant Review board (2006 and 2007).
    a. Organic foods, a $28,000,000 panel
    b. Higher education $6,000,000 panel
2) Director of the Purdue University Meats Products Laboratory (2008-2012).
3) Member-Information Technology Implementation College Level-Agriculture (2008).
4) Member of Undergraduate Programs Committee in ANSC (2001-02 & 2005-2006).
5) President Elect for Purdue University Cooperative Extension Association (2004-2005).
6) Chair Elect for Curriculum Student Relation Committee which sets all academic courses for the colleges and must matriculate those within the university system (2004-2005).
7) Member-College of Agriculture Committee for Developing Distance Learning (2001).
8) Chair-Student Outreach Committee (2000).
9) Member-Graduate Committee (1997-98).
10) Co-chair of Quadrathlon (1998) and Poultry Unit (1998-present) Committees.

<u>At Southern Illinois University</u>

1) FARM ILLINOIS: FARM Illinois is a statewide association organized to develop and implement a comprehensive and integrated 21st-century strategic plan for food and agriculture in Illinois. I was selected to serve on the executive board and elected to be Chair for the workforce and education section of FARM Illinois.
2) Lead negotiator for Non-Tenure Track Union Contracts, 2014-2017.
3) Chair-College of Education and Human Services Dean Search, 2016.
4) Chair-Vice Chancellor for Student Affairs committee, a Chancellor requested initiative, 2014.
5) Chair - University Award for Outstanding Teacher, 2013, 2014 and 2016.
6) Chancellor appointment as Deputy of Summer School to design a new summer school model, 2013.
7) Chair - University Award for Young Scholars, 2012.
8) Member and participant in Illinois Soybean Association, Illinois Farm Bureau, and Illinois Cooperative.

**Awards and Honors**

1) Excellence in Leadership, Association of Illinois Electric Cooperatives, 2014.
2) Member of the College of Agriculture Team Award for Distiller's Dried Grains Research, Purdue University. 2009.
3) *Richard L. Kohls* Outstanding Teaching Award, Purdue University, 2008.
4) Teaching Academy Fellow, Purdue University. 2008.
5) National Teaching Fellow, North American Colleges and Teaching in Agriculture. 2007.
6) Excellence in Teaching Award, Department of Animal Science, Purdue University. 2001, 2004 and 2007.
7) Excellence in Classroom Instruction, USDA. 2004.
8) Award of Excellence in Distance Education, Purdue University. 2001.
9) Graduate student award for best oral presentation, National Poultry Science. 1995.
10) Graduate student award for best presentation, Southern Section, PSA. 1995.
11) Graduate student award for dissertation research, Sigma Xi. 1994.

**Leadership Training**

1) Leadership 101, John Maxwell, 2009.
2) The 8th Habit, Stephen Covey, 2010.
3) How to Win Friends and Influence People, Dale Carnegie, 2012.
4) Washington University, Olin School of Business for Executive Training, 2013-2106.
    a. Transformative Leadership Coaching

b. Negotiation and Conflict Management

c. Understanding Influence

d. Motivation

e. Teams

**Excellence in Teaching**

1. I was the lead instructor for Introduction to Animal Science (ANSC 10200) which is a foundation course within the Animal Science Department of Purdue University. Initially, it was taught solely on the Purdue University West Lafayette campus; however, it has recently been expanded beyond this single offering mode. In 1998, I developed an online version of Introduction to Animal Science for students around the globe which was separate from that accessible to students on the West Lafayette campus. Revenues generated from the online version were used to study compare and contrast aspects with the on-campus version which resulted in numerous publications and invited talks. The online course has generated more than 1 million in new revenues. I have received numerous teaching awards (nationally and state), *see awards section for complete listing* and membership in the Purdue Teaching Academy.
2. Led the development of Advanced Placement test for High School Students; that is, I created a test out option for students being taught by high school teachers, which is now part of the Core Science requirements in Indiana.
3. Led Experiential Learning Opportunities for Students

    1) Meunier, R.A. Lipid transfer in neonatal chicks treated with various fatty acids, 1998.
    2) Woodcock, M. Maternal behavior of the chicken. 1999.
    3) Ockenga, S. Poultry behavior in non-selected chickens during incubation. 2000.
    4) Weaver, A. Developed laboratory learning materials for ANSC 10200 and taught one laboratory section of ANSC 10200. 2000.
    5) Jinks, A. Developed laboratory learning materials for ANSC 10200 and taught one laboratory section of ANSC 10200. 2001.
    6) Branson, T. Developed laboratory learning materials for ANSC 10200 and taught one laboratory section of ANSC 10200. 2001.
    7) Developed laboratory learning materials (n=180 pages) for ANSC 10200 and taught one laboratory section of ANSC 10200. 2002. A. Weaver, A. Jinks, T. Branson, and A. Jasinski
    8) Bennett, A. Development of a lipoprotein lipase assay for horses. 2001.
    9) Thomas, M. Evaluating the pigment of layer hens fed specific carotenoids. 2002 (the student presented this material at Creighton Bros., in Warsaw, Indiana and useful information towards a patent).
    10) Pohle, K. Examining Fatty Acid Profiles of Sows. 2002. (student presented this material at Johnsonville Foods).
    11) Gordon, L. Investigating the Omega 3 deposition in Sows. 2003-2004 (the student has presented this work at the university agriculture research posters (3$^{rd}$ place), Ball State University and at the national Animal Sciences meeting in St. Louis, MO, 2004. (published).
    12) Perry, K. Investigating the composition of eggs from different retail markets. 2006.
    13) Berger, E. Investigating the composition and appearance of sausage in casing from various

retail markets. 2006.

14) Legan, E. Evaluating growth and carcass changes in cull gilts fed distiller's dried grains with solubles, (published). 2007.
15) Kesselbrock, K. Manipulation of fat tissue in sow to create a healthier bratwurst (paper 65). 2009.
16) Kamrath, C. ANSC 49300: Estimating the level of trans fatty acids in a wide range of sausage products. 2008.
17) Anspach, A. ANSC 49300: Using digital images to estimate pork belly firmness. 2008.
18) Benitez, M. ANSC 49100: Literature review on the use of distillers dried grains with solubles in wild bird diets. 2008.
19) Carson, A. ANSC49100: Use of a new form of conjugated linoleic acid in swine to improve fat quality. 2008.
20) McIntire, W. ANSC49100. Examine bacon defects in final products. 2008-2009. (This work was used as preliminary data in the recently funded Kraft Foods Grant for $92,000).

**Excellence in Research**

A national and international expert in the area of lipid metabolism, especially as this relates to final food products. Extensively trained many undergraduate, graduate and visiting scientists while at Purdue University and in the area of manipulation of fatty acids, specifically in the fat cells as it relates to growth, stress and/or dietary alterations. Additionally, I conducted studies on how fat cell lipids impact final food products such as bratwurst and bacon as well as consumer preferences (texture, mouth feel and appearance). A national leader on the *identification of soft fat in swine, principally the level of linoleic acid (C18:2n6) and how that impacts final food products, specifically bacon and bratwurst*.

**Articles**

1) Schoonover, J., and M. A. Latour, 2015. Crafting the exam, NACTA (59) 89-90.
2) Ellis, C., and M. A. Latour, 2014. Improving course completion rates through the use of a distance learning assistant. JMER Vol 4, No. 11, pages 924-929.
3) Apgar, G., B. Banz, and M. A. Latour, 2014. Engaging students in large lecture classes. NACTA (58) 85-86.
4) Zhu, Y., S. Arnold, B. Richert, A. Schinckel and M. Latour, 2012. Impact of Distillers Dried Grains with Solubles and Restaurant Grease on Pork Loin Quality. JABR Vol 1(6)102-115. *Student in M. Latour laboratory.*
5) Hooda, S., L.G. Ferreira, M.A. Latour, L.L. Bauer, G. C. Fahey, Jr. and K.S. Swanson, 2012. Digestion and Metabolic Characteristics of an Expanded Pork Skin Chew and a Rawhide Chew in Healthy Dogs. J. Anim. Sci. 90:4355-4361.
6) White, H.M., B.T. Richert and M.A. Latour, 2012. Impacts of Nutrition and Environmental Stressors on Lipid Metabolism: ISBN 980-953-307-142-3, Invited Chapter *Student in M. Latour laboratory.*
7) White, H.M, B.T. Richert, J.S. Radcliffe, A.P. Schinckel, S. Koser, S.S. Donkin and M.A. Latour, 2009. Feeding conjugated linoleic acid partially recovers carcass quality in pigs fed dried distillers grains with solubles. *J. Anim. Sci.* 87(1) 157-166. *Student in M. Latour laboratory.*
8) Wert, K.M., N.R. Augspurger, J.D. Spencer, H.M. White, A.P. Schinckel and M.A. Latour, 2009. Effects of distillers dried grains with soluble and growmega$^{TM}$ on bratwurst meat quality. *Amer. Reg. Prof. Anim. Sci.695-700. Student in M. Latour laboratory.*
9) Latour, M.A., B.T. Richert, J.S. Radcliffe, A.P. Schinckel, and H. White, 2008. Effects of feeding restaurant grease, tallow and conjugated linoleic acid on finishing pig carcass and growth

performance. *Amer. Reg. Prof. Anim. Sci.* 24(2) 156-160.

10) Platt, J., C.P. Rusk, C.R. Blomeke, B.A. Talbert and M.A. Latour, 2008. An evaluation of digital versatile disc (DVD) instruction, live instruction, and live animals in third grade classrooms. *NACTA* 52(1) 2-5. *Student in M. Latour laboratory.*
11) Wagler, S.E., C.P. Rusk, C.R. Blomeke, B.T.Richert, M.A., Latour, and B. A. Talbert, 2008. Classroom evaluation of an elementary educational swine curriculum: there's a pig in my classroom. *J. Ag. Ed.* 49(3) 8-12.
12) Zhai, W., S.L. Newman, M.A. Latour and P.Y. Hester, 2008. The effects of *in ovo* injection of L-carnitine on hatchability of white leghorns. *Poult. Sci.* 87(3):569-572.
13) White, H.M., B.T. Richert, A.P. Schinckel, J.R. Burgess, S.S. Donkin, and M.A. Latour, 2008. Effects of temperature stress on growth performance and bacon quality in grow-finish housed at two densities. *J. Anim. Sci.* 86(8)1789-1798. *Student in M. Latour laboratory.*
14) Legan, E., H.M. White, A.P. Schinckel, A.M. Gaines and M.A. Latour, 2007. Evaluating growth and carcass changes in cull gilts fed distiller's dried grains with solubles. *Amer. Reg. Prof. Anim. Sci.* 23(6) 612-615. *Student in M. Latour laboratory.*
15) Zhai, W., S.L. Newman, M.A. Latour and P.Y. Hester, 2007. The effects of dietary L-carnitine on semen traits of white leghorns. *Poult. Sci.* 86(10) 2228-2235.
16) Wagler, S.E., C.P. Rusk, C.R. Blomeke, B.A. Talbert, B.T. Richert, and M.A. Latour, 2007. An evaluation of attitude change by participation in an elementary educational swine curriculum. *NACTA* 51(3) 38-43.
17) Latour, M.A., 2006. Evaluating acceptance of modules in a virtual course: introduction to animal sciences. *NACTA* 50(2) 32-35.
18) Wang, X, G. Hockerman, H.W. Green, C.F. Babbs, S.I. Mohammad, D.E. Gerrard, M.A. Latour, B. London, K. Hannon and A. Pond, 2006. Merg1k+ channel induces skeletal muscle atrophy by activating the ubiquitin proteasome pathway. *Fed. Amer. Soc. Exp. Biol.* 20 (9) 233-241.
19) Gordon, L. M., A. Cox, A. Schinckel, and M.A. Latour, 2005. Evaluating the fatty acid profile of retail bratwurst and Fertilium treated sows. *Amer. Reg. Prof. Anim. Sci.* 21:232-238. *Student in M. Latour laboratory.*
20) Ley, M.A., K. Orvis, and M.A. Latour, 2005. Analysis of virtual and traditional teaching assistants used in introductory to animal science courses. *NACTA* 49(3) 47-50.
21) Norberg, S.E., R.N. Dilger, H. Dong, B.G. Harmon, O. Adeola, and M.A. Latour 2004. Utilization of energy and amino acids of spray-dried egg, plasma protein, and soybean meal in ducks. *Poult. Sci.* 83:939-945. *Student in M. Latour laboratory.*
22) Taylor, J., C.F. Babbs, M.B. Alzghoul, A. Olsen, M.A. Latour, A. Pond, and K. Hannon 2004. Optimization of ectopic gene expression in skeletal muscle through DNA transfer by electroporation. *Biotech.* 4:11-15.
23) Woodcock, M., E. Pajor, and M.A. Latour, 2004. The effects of hen vocalizations on chick feeding behavior. *Poult. Sci.* 83(12) 1940-1943. *Student in M. Latour laboratory.*
24) Frank, N., J.E. Sojka, and M.A. Latour, 2004. Effect of hypothyroidism on the blood lipid response to high dietary fat intake in mares. *J. Anim. Sci.* 82:2640-2646. *Student in M. Latour laboratory.*
25) Frank, N., J.E. Sojka, B.W. Patterson, K.V. Wood, C.C. Bonham and M.A. Latour, 2003. Effect of hypothyroidism on kinetic parameters of very low density lipoprotein in mares. *Amer. J. Vet. Res.* 64(8)1052-1058. *Student in M. Latour laboratory.*
26) Frank N., J.E. Sojka, and M.A. Latour 2003. Effects of hypothyroidism and withholding of feed on plasma lipid concentrations, concentration and composition of very-low-density lipoprotein, and

plasma lipase activity in horses. *Amer. J. Vet. Res.* 64(7):823-828. *Student in M. Latour laboratory.*

27) Meunier, R.A., B.A. Talbert, and M.A. Latour, 2003. Evaluation of the incubators in the classroom: does it increase fourth grade students' knowledge about agriculture professions? *J. Agr. Ed.* 44:23-33. *Student in M. Latour laboratory.*
28) Latour, M.A. and P. Collodi, 2003. Evaluating the performance and acceptance of teleconference instruction vs. traditional teaching methods for undergraduate and graduate students. *Poult. Sci.* 82:36-39Srivastava, N., D. Noto, M. Averna, J. Pulai R.A.K. Srivastava, T.G. Cole, M.A. Latour, B.W. Patterson and G. Schonfeld. 1996. A new apolipoprotein B truncation (apoB-43.7) in familial hypobetalipoproteinemia: Genetic and metabolic studies. *Met. Exp. and Clin.* 45(10) 1296-1304.
29) Latour, M.A., 2002. Test comparison between teleconferencing vs. traditional classroom lectures for an introductory animal sciences course. *NACTA* 47(1) 2-7.
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31) Peebles, E.D., C.D. Zumwalt, P.D. Gerard, M.A. Latour, and T.W. Smith, 2002. Market age live weight, carcass yield, and liver characteristics of broiler offspring from broiler hens fed diets differing in fat and energy content. *Poult. Sci.* 81:23-39.
32) Braun, C.M., N. Frank and M.A. Latour. 2002. Changes in circulating lipids in duck embryos and newly hatched ducklings from different age parents. *Biol. Neo.* 82(2):128-133. *Student in M. Latour laboratory.*
33) Braun, C.M., S. Neuman, P.Y. Hester, and M.A. Latour, 2002. Breeder age alters the performance of Pekin ducklings. *J. Appl. Poult. Res.* 11(3):270-274. *Student in M. Latour laboratory.*
34) Peebles, E.D., C.D. Zumwalt, T.W. Smith, P.D. Gerard, and M.A. Latour, 2002. Poultry fat and corn oil may be used to adjust energy in the diets of young breeder hens without affecting embryogenesis and subsequent broiler growout performance. *J. Appl. Poult. Res.* 11(2):146-154.
35) Frank, N., J.E. Sojka, and M.A. Latour, 2002. Effect of withholding feed on concentration and composition of plasma very low density lipoprotein and serum nonesterified fatty acids in horses. *Amer. J. Vet. Res.* (7):1018-1020. *Student in M. Latour laboratory.*
36) Meunier, R.A., B.A. Talbert, and M.A. Latour, 2002. Evaluation of the incubators in the classroom: Does it increase fourth grade students' knowledge of agriculture-related science concepts? *J. Agr. Ed.* 43(3)49-60. *Student in M. Latour laboratory.*
37) Peebles, E.D., S.M. Doyle, C.D. Zumwalt, P.D. Gerard, M.A. Latour and C.R. Boyle. 2001. Breeder age influences embryogenesis in broiler hatching eggs. *Poult. Sci.* 80:272-277.
38) Latour, M. A., E.D. Peebles, S.M. Doyle and T. Pansky. 2001. Effects of broiler breeder hen age and dietary fat intake on circulating serum lipids. *J. Appl. Anim. Res.* 19:73-84.
39) Braun, C.M., J.M. Burgess and M.A. Latour. 2001. Liver lipid accumulation in duck embryos and hatchlings changes with parental age. *Biol. Neo.* 80:228-234. *Student in M. Latour laboratory.*
40) Latour, M.A., A.A. Devitt, R.A. Meunier, J.J. Stewart and B.A. Watkins. 2000. Effects of conjugated linoleic acid. 1. Fatty acid modification of yolks and neonatal fatty acid metabolism. *Poult. Sci*. 79: 817-821.
41) Latour, M.A., A.A. Devitt, R.A. Meunier, J.J. Stewart and B.A. Watkins. 2000. Effects of conjugated linoleic acid. 2. Embryonic and neonatal growth and circulating lipids. *Poult. Sci*. 79:822-826.
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43) Peebles, E.D., C.D. Zumwalt, S.M. Doyle, P.D. Gerard, M.A. Latour, C.R. Boyle and T.W. Smith.

2000. Effects of dietary fat type and level on broiler breeder performance. *Poult. Sci.* 79:629-639.

44) Peebles, E.D., C.D. Zumwalt, S.M. Doyle, P.D. Gerard, M.A. Latour, C.R. Boyle and T.W. Smith. 2000. Effects of breeder age and dietary fat source and level on broiler hatching egg characteristics. *Poult. Sci*. 79:698-704.

45) Latour, M.A., R.A. Meunier, D. Huber and K. Stallings. 2000. Ammoniated broiler diets reduce fecal phosphorus excretion. *J. Appl. Anim. Res.* 18:91-95.

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47) Peebles, E.D., S.M. Doyle, T. Pansky, P.D. Gerard, M.A. Latour, C.R. Boyle and T.W. Smith. 1999. Effects of breeder age and dietary fat on subsequent broiler performance. 1. Growth, mortality, and feed conversion. *Poult. Sci.* 78: 505-511.

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ethanol on serum lipoprotein cholesterol in juvenile meat-type chickens. *Alcohol*, 13:111-115.

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Submitted Articles

Stevens, J., A. P. Schinckel, M. A. Latour, and B. T. Richert, 2019. Evaluation of dried distillers grains with solubles withdrawal programs on grow-finish pig growth performance, carcass parameters, belly and bacon quality, and fatty acid profiles.

Graduate Student Involvement

Graduated Students: served on numerous graduate committees and either directed or co-directed n=10, MS, PhD – 3; 2 Visiting Scientists and served on numerous committees.

## Excellence in Extension

A national leader in the area of poultry and swine production with major efforts/accomplishments shown.

1) **Small and Large Producer Assistance**: One of the fastest growing segments of agriculture is the natural and organic sector. USDA reports that growth in retail sales has grown significantly since 1990. I served on the USDA awards panel which distributed $28,000,000 dollars for organic farms and was the principal poultry and swine person responsible for reviewing those grant applications.

2) **Assistance to Meat Processors**: Along with Dr. Daryl Swartz, I served as the technical advisors to the Indiana Meat Processors Association. I provided direct assistance concerning how to handle the bellies of pigs to create the best slice of bacon and expertise on how to create the best bratwurst. In shared responsibilities, workshops on basic knife skills, and pork, beef and poultry processing were done in 2009-2012.

3) **State Meats Competition**: I led the meats competitions for the state of Indiana (n=100 participants) and led the conversation for the first ever bi-state meats competition between Illinois and Indiana through cooperative relationships with the University of Illinois.

4) **State Wide Initiative-Incubators in the Classroom:** In order to increase agriculture awareness, I created the incubators in the classroom program and the following hands-on teaching components for this program: 1) a story-line coloring book, 2) a teacher's Lesson Guide on incubating chicken eggs, 3) an incubator, and 4) two CD-ROM's.

   Impact of the Program

   - One hundred fifty preschool and daycare programs with an average enrollment of 20 students per program (total students = 2,920).
   - Two hundred ninety-five elementary school classes with an average enrollment of 22 students per class (total students = 7,222).
   - Three home-schooling programs with an average enrollment of 4 students (total students = 12).
   - Fifteen Agriculture day programs in individual counties with an average participation of 600 persons (total participants = 9,000).
   - Two presentations at the Indiana School for the Deaf (24 students) and the Indiana State Museum (1,950 participants).

   University Recognition for Incubators in the Classroom: Awarded the 2001 distance learning award as the best non-credit material at Purdue University.

   National Recognition for "Incubators in the Classroom:" Since October 2000, various components, e.g., either an embryology poster or CD's have been distributed to 1,235 classrooms, across 42 states.

**Extension Publications**

1) Latour, M.A., and A.P. Schinckel, 2008. The influence of dried distiller's grains on carcass fat in swine. *Ag. Com., AS-345W.*
2) Latour, M.A., 2008. Eggs Experiments: A fundamental way to teach science using eggs. *Ag. Com., AS-574-W.pdf*
3) Latour, M.A., and T. Applegate. 2005. Getting started with the home poultry flock. *Ag. Com., AS-568W.*
4) Meunier, R.A., and M.A. Latour. 2000. Commercial poultry production and processing. *Ag. Com., Purdue University, AS-545-W.*
5) Meunier, R.A., and M.A. Latour. 1999. A guide for housing, brooding, and handling chicks safely. *Ag. Com., Purdue University, ACS 527.*

6) Linton, R., J. Eiffert and M.A. Latour. 1999. Food safety: it's in your hands. *Ag. Com., Purdue University, FS-8.*
7) Latour, M.A., R. Meunier, and K. Wolber. 1998. Incubators in the classroom: A guide for teachers. *Ag. Com., Purdue University, AS-521.*
8) Latour, M.A., and A.L. Pond. 1998. Chirp and Shelby's exciting discovery. *Ag. Com., Purdue University, AS-520.*
9) Stewart, J., A. McBride, R. Meunier, and M.A. Latour. 1998. The developing chick embryo. *Ag. Com., Purdue University, AS-523.*
10) Stewart, J., and M.A. Latour. 1998. The formation of an egg. *Ag. Com., Purdue University, AS-525.*
11) Latour, M.A. 1997. Making a chick book. *Ag. Com, Purdue University, AS-519.*
12) Akers, D., M. Akers, and M.A. Latour. 1997. Choosing a poultry breed. *Ag. Com., Purdue University, AS-518.*
13) Peebles, E.D., M.A. Latour and C.D. Zumwalt. 1994. Pumping up fat in poultry feed. *Res. Highlights, Mississippi State University,* 57:2.
14) Brake, J.D., M.J. Fuller, C.R. Boyle, D.E. Link, E.D. Peebles and M.A. Latour. 1994. Kenaf for broiler litter. *Res. Bulletin, Mississippi State University,* 1011:24.
15) Peebles, E.D., M.A. Latour and J.D. Brake. 1992. Fat not all bad for broiler chicks. *Res. Highlights, Mississippi State University,* 55:3.

***Conference Proceedings***

1) Richert, B.T. and M.A. Latour. Use of conjugated linoleic acid in swine feeding programs, Swine Nutrition Conference, Indianapolis, Indiana (presentation, September 2009).
2) Latour, M.A., 2007. Soft fat in swine as influenced by diet and environment. Carolina Feed Industry Association http://www.carolinafeed.com/2007%20CFIA%20Fall%20Program.pdf
3) White, H.M. and M.A. Latour. The impact of added dietary fat on carcass fat quality. 2007. Midwest Swine Nutrition Conference-Indianapolis, Indiana. http://www.livestocktrail.uiuc.edu/uploads/porknet/papers/2007%20MWSNC%20Proceedings.pdf pages 42-48.

**Extension Workshops:** (chaired or member of approximately 100 different extension workshops)

## Invited Presentations (National and International)

1) Challenges in Distance Learning, University of New Orleans, 2018.
2) Outreach, Engagement and Research Collaborations, University of Illinois, 2017.
3) Distance Learning, Reykjavik University, Iceland, 2017.
4) Design of Dog Treats, Scott Pet, Rockville, IN. 2016.
5) Hypobetalipoproteima Kindreds, Southeastern Louisiana University, 2016.
6) Headwinds of Higher Education, Southeastern Louisiana University, 2016.
7) Creating an Executive i2i Enrichment program for Talented Undergraduates, Purdue University, IN 2014.
8) Expanding Undergraduate Research Discovery, Alabama A & M, 2014.
9) Illinois Agriculture, University of Havana, Cuba, 2014.
10) Vision for Higher Education in Agriculture, University of Illinois, Chicago, 2013.
11) How fat is manipulated in swine, Elanco, IN 2011.
12) Digestibility of pork skin in non-ruminants, PetSmart, Phoenix, Arizona 2011.

13) Lipid stability in pork skin, Costco, Seattle, WA, 2011
14) What causes soft fat in swine, Kent Feeds, IA, 2010.
15) How to develop distance learning programs. University College Dublin, Ireland. 2009.
16) How soft fat alters slicing ability in pork bellies, Oscar Mayer, Madison, WI. 2009.
17) Linoleic acid impact on sausage, Dublin Ireland. 2009.
18) How n6 fatty acids impact bacon quality, Köln, Germany. 2009.
19) Manipulating sow fat during the cull period, United, Sheridan, IN and Galesburg, IL. 2008.
20) Swine fat manipulation with diet and environment, Sempach, *Switzerland*. 2008.
21) Fatty acid metabolism in poultry, Alberta, Canada. 2008.
22) Distillers dried grains with solubles impact in sow carcass fat, Johnsonville, WI. 2008.
23) Estimating *trans fatty acids* using both gas chromatography coupled with near infrared (NIR) technology, Foss North America, Cleveland, OH. 2008.
24) Soft fat in swine both market pigs and sows, Pioneer, IA. 2008.
25) Fat cell formation and fatty acid manipulation in non-ruminants, Southeastern Louisiana University, Hammond, LA. 2008.
26) Soft fat in swine market pigs and sows, SD. 2008.
27) On math in the college of agriculture, Kansas State University, Manhattan, KS. 2008
28) Teaching symposium on distance learning, National American Society of Animal Sciences, Indianapolis, IN. 2008.
29) Use of introduction to animal sciences to satisfy course science requirement in Indiana high schools, Pearl River High School, Pearl River, LA. 2008.
30) Showcase our efforts in distance education for animal agriculture. *Bangalore, India.* 2008.
31) Challenges in distance education courses. *Paris, France.* 2008.
32) Use of digital media in animal sciences. *Zürich, Switzerland.* 2008.
33) How stocking density influences fat metabolism in swine, Smithfield, VA. 2007.
34) Fatty acid manipulation in swine fed distiller's dried grains, Foss North America, NC. 2007.
35) Fat sampling on market pigs and its impact on carcass iodine value, Kent Feeds and Tyson Foods-Swine, IA. 2007.
36) Fat formation in swine, Akey, Lewisburg, OH. 2007.
37) Sow fat manipulation, Johnsonville, Momence, IL. 2007.
38) Soft fat in swine. Midwest Feeding and Nutrition Conference, Indianapolis, IN. 2007.
39) Fat manipulation by diet and environment, North Carolina Feed Conference, Raleigh, NC. 2007.
40) Challenges in distance learning environments, North Central Region-Academic Program, Lincoln, NE. 2007.
41) Effects of heat stress on fat tissue, Smithfield Foods, VA. 2006.
42) Use of gas chromatography to identify soft fat characteristics, Murphy-Brown, Tar Heel, NC. 2006.
43) Sausage softness as influenced by the level of linoleic acid, Johnsonville, Watertown WI. 2006.
44) Use of distiller dried grains as related to soft fat tissue, United Feeds, Sheridan, IN. 2006.
45) Fatty acid metabolism in fast and slow growing pigs, Premium Standard Farms, Princeton. MO. 2006.
46) Fatty acid manipulation using conjugated linoleic acid. BASF Corp., New Jersey. 2006.
47) Student engagement at a distance using virtual teaching assistants in the classroom and beyond, National American Society of Animal Sciences, St Paul, MN. 2006.
48) Use of digital technology in the classroom for Introduction to Animal Sciences, University of Connecticut, Storrs, CT. 2006.
49) Implementing learning materials on embryology in the elementary classroom, University of Illinois, Champaign-Urbana. 2005.

50) Factors that influence fat firmness in pigs, Smithfield Foods, VA. 2005.
51) Fatty acid alterations in swine, poultry and humans during various phases of life, University of British Columbia, *Vancouver, Canada*. 2005.
52) Lipid markers in market pigs, BASF Corp., New Jersey. 2004.
53) Fat manipulation in market pigs during the final phase of feeding, *Merida, Mexico*. 2004.
54) Fatty acid markers in sows, Johnsonville Sausage Co., Momence, IL. 2004.
55) Fat firmness in market pigs, *Hermosillo, Mexico*. 2004.
56) Lipid metabolism in non-ruminant animals, Purina Mills, St. Louis, MO. 2004.
57) Fatty acid metabolism in non-ruminants (swine and poultry) *Guadalajara, Mexico*. 2004.
58) Teaching in a virtual classroom to Indiana high school teachers workshop, Indianapolis, IN. 2004
59) Distribution of fatty acids of sows challenged with various diets, Johnsonville Sausage Co., Watertown, WI. 2003.
60) Using a variety of different approaches to teach introduction to animal sciences, Ball State University, Muncie, IN. 2003.
61) Implementing a totally virtual course, Indiana University School of Dentistry, Indianapolis, IN. 2003.
62) Challenges and opportunities in creating a distance learning course, North Carolina State University, Raleigh, NC. 2003.
63) Use of conjugated linoleic acid in market pigs, Smithfield Foods, VA. 2003.
64) Distance learning in animal science, University of Kentucky, Lexington, KY. 2002.
65) Physiology of the layer hen, BASF, New Jersey. 2002.
66) Dyslipidemia in avian offspring from young breeders, The Ohio State University, Columbus, OH. 2001.
67) Lipid metabolism is avian offspring, USDA/ARS, Starkville, MS. 2001.
68) Metabolism of conjugated linoleic acid, Trouw Nutrition, Highland, IL. 2001.
69) Delivery of educational material in cooperative extension, West Virginia University, Morgantown, WV. 2001.
70) The relationship between lipid mobilization and carotenoids in layer hens, BASF Company, New Jersey. 2000.
71) Delivery of electronic media and international studies, National American Society of Animal Science, Baltimore, MD. 2000.
72) Effects of conjugated linoleic acid on lipid deposition and circulating lipoproteins, Alpha Food Ingredients, Chicago, IL. 2000.
73) Improving poultry production, *Honduras*. 1999.
74) Lipid metabolism in avian vs. mammals, Animal Sciences Department, Michigan State University, East Lansing, MI. 1998.
75) Atherosclerotic plaque formation and lipoproteins, University of Michigan School of Medicine. Ann Arbor, MI. 1998.

**Grants, Awards & Gifts: (approximately 5 million in funding)**

1. Federal

    - USDA, Higher Education Challenge Grant. 2010-2012. Development of pathways for high school students to earn college credit. $450,000, Co-PI.
    - USDA, Development of a HACCP and GMP's Train-the-Trainer Program, Food Safety $50,000, CoPI.
    - USDA, Health survey of small poultry flocks, PI, $72,840.
    - USAID, PI (2012-2014) on advancements in agricultural training, $110,000.

2. Development of an open-campus course, self-supporting, Virtual Introduction to Animal Science. The online course was one of the very first within the College of Agriculture 1998/1999 and was delivered world-wide online (estimated $1.5 M contribution and continues today). The purpose was to provide educational opportunities for students world-wide and to garner "new" revenue.

3. State and Government Agencies:

    - Indiana Value Added Grant: "The effects of conjugated linoleic acid (CLA) on blood cholesterol levels of pigs, pig growth and carcass composition, and the regulation of gene expression, $60,000. Co-PI"
    - To assess a dry egg product in segregated early weaned (SEW) piglets. $28,000 Co-PI.
    - US Poultry and Egg: "Carnitine's role in improving reproductive efficiency in chicken and turkey breeders". $150,000 Co-PI.
    - National Pork Board: "Pork quality in sows fed distiller's dried grains." $67,000 PI
    - National Pork Board: "Distillers grains in market pigs." $60,000 Co-PI.
    - Illinois Board of Higher Education: Co-PI. $700,000 design of dual credit courses.

4. Industry support for research in lipid metabolism (~1,000,000): Swift Foods, Maple Leaf Farms, Cambridge Isotopes, Purina Mills, Nutreco Nutrition, BASF, Smithfield Foods, and Kraft Foods.

5. Academic i2i with Potash Corp, $300,000 and PLAMAN, $25,000.