Celebration of Scholarship Day 2013

September 20, 2013 • 11 a.m. - 12:30 p.m.
Fort Valley State University • C. W. Pettigrew Center
1065 State University Drive • Fort Valley, Georgia 31030
Welcome to the inaugural Celebration of Scholarship Day 2013 at The Fort Valley State University. I am pleased to introduce this event as the first in what I expect to be an annual occasion. Quite often scholars from FVSU are invited to present and showcase their work at other venues, and are recognized for doing so by organizations across the country and around the world, but this event allows them to be recognized right here at home! And, it lets them know how proud we are of them!

Additionally, there are two highly important reasons why Celebration of Scholarship Day is a worthy pause in our busy schedules here at FVSU. Firstly, it allows current students to see the scholarship of faculty and research staff with whom they interact on a daily basis, and by doing so, hopefully they will catch a glimpse of what they can be, and what they can do in their own academic and professional careers. Secondly, it says to prospective students that the faculty and staff at FVSU are of a caliber that is second to none, and that this institution is a place to which they can come to achieve their goals and aspirations.

I look forward to the continued growth of this event moving forward, and I invite you to join me in celebrating the great work of all those who are being honored.

Keep on keeping on!

Ivelaw Lloyd Griffith, Ph.d.
President
FVSU – THE IDEAL PLACE FOR YOU!

With an enrollment beyond 3,000, our school is the perfect size for building lifelong ties that go beyond race and cultural background; ties that are based on a shared love of learning and a thirst for personal growth. We’re family here! Everyone belongs! Our more than 70 student organizations and activities range from a thriving sorority and fraternity system, to conference-leading athletic teams, honor societies and student government. FVSU’s stately campus is the ideal environment for one-on-one learning, but we also encourage connections to the world around us, both near and far, through close relationships with local communities and our study abroad programs that trace ancestral bonds halfway around the globe. FVSU is growing and building: we have apartment-style residence halls, a spacious Wildcat Stadium, and state-of-the-art learning facilities. The following is a list of our programs and their accreditations:

Graduate:

• Educational Specialist with a major in School Counseling Education (GaPSC & NCATE accredited & CACREP)
• Master of Science in Animal Science
• Master of Science in Biotechnology
• Master of Science with a major in Rehabilitation Counseling (accredited by the Council on Rehabilitation Education (CORE)
• Master of Science in Education with a major in Middle Grades Education (GaPSC & NCATE accredited)
• Master of Science in Education with a major in Early Childhood/Special Education (GaPSC & NCATE accredited)
• Master of Education with a major in School Counselor Education (accredited by NCATE & CACREP)
• Master of Science with a major in Mental Health Counseling (preliminary work towards accreditation)
• Master of Public Health with a major in Environmental Health (preliminary work towards accreditation)

Undergraduate:

• Bachelor of Science in Electronic Engineering Technology Program (accredited by the Accreditation Board for Engineering & Technology – ABET)
• Bachelor of Science with a major in Veterinary Technology (accredited by the American Veterinary Medical Association – AVMA)
• Bachelor of Science in Education with a major in Middle Grades Education (GaPSC & NCATE accredited)
• Bachelor of Science in Education with a major in Early Childhood/Special Education (GaPSC & NCATE accredited)
• Bachelor of Science in Education with a major in Health & Physical Education (GaPSC & NCATE accredited)
• Bachelor of Science in Agriculture with a major in Agricultural Teacher Education (GaPSC & NCATE accredited)
• Bachelor of Science in Family & Consumer Sciences with a major in Family Consumer Sciences Education (GaPSC & NCATE accredited)
• Programs Working Towards Accredited (note that some are further along than others):
  • Bachelor of Social Work (Council of Social Work accreditation pre-candidacy)
  • Business Administration & Economics (ACBSP accreditation candidacy)
  • Bachelor of Arts with a major in Economics
  • Bachelor of Business Administration with a major in Accounting
  • Bachelor of Business Administration with a major in Management
  • Bachelor of Business Administration with a major in Marketing
  • Bachelor of Science with a major in Chemistry (working towards ACS accreditation)
  • Bachelor of Arts with a major in Commercial Design (working towards NASADA accreditation)
  • Bachelor of Arts with a major in Mass Communication (working towards ACEJMC accreditation)
  • Bachelor of Science with a major in Computer Science (working towards ABET accreditation)
Celebration of Scholarship Day 2013

PROGRAM
September 20, 2013
11:00 am to 12:30 pm
C.W. Pettigrew Center 102-104

Presiding ..................Dr. Linda Noble, Interim Provost & VP of Academic Affairs
Choir Selection ........................................Directed by Dr. Franklin Gross
Welcome ..........................................................Dr. Linda Noble
Introduction of the President ..................................Dr. Linda Noble
President’s Remarks..............................Dr. Ivelaw Lloyd Griffith, President of FVSU
Musical Selection ..................................................Dr. Franklin Gross
Recognition of 2012-2013 Scholarship ..................Academic Deans
Presentation of 2012-2013 Excellence Awards ..........Dr. Linda Noble
                      Assisted by Dr. Toppin
Introduction of the Faculty Development Steering Committee ...Dr. Ian Toppin
Introduction of the Celebration of Scholarship Day Committee ..Dr. Ian Toppin
Adjournment
Refreshments

Committee Members
Dr. Ian Toppin, Committee Chair
Dr. Dawit Aberra, Dr. Curtis Borne, Dr. Josephine Davis, Dr. Sarwan Dhir
Dr. Andrew Lee, Dr. George Mbata, Dr. Teah Moore,
Dr. Mahipal Singh

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<table>
<thead>
<tr>
<th>No.</th>
<th>Scholar’s Name</th>
<th>Department</th>
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<tbody>
<tr>
<td>1</td>
<td>Ajit K. Mahapatra</td>
<td>Agricultural Research Station</td>
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<tr>
<td>2</td>
<td>George McCommon</td>
<td>Veterinary Science and Public Health</td>
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<tr>
<td>3</td>
<td>Seyedmehdi Mobini</td>
<td>Veterinary Science</td>
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<tr>
<td>4</td>
<td>Young W. Park</td>
<td>Agricultural Sciences</td>
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<tr>
<td>5</td>
<td>Clarence E. Riley, Jr.</td>
<td>Veterinary Science and Public Health</td>
</tr>
<tr>
<td>6</td>
<td>Oreta M. Samples</td>
<td>Veterinary Science and Public Health</td>
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<tr>
<td>7</td>
<td>Mahipal Singh</td>
<td>Animal Science / Biotechnology</td>
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**COLLEGE OF ARTS & SCIENCES**

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<thead>
<tr>
<th>No.</th>
<th>Scholar’s Name</th>
<th>Department</th>
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<tr>
<td>8</td>
<td>Kristen E. Broady</td>
<td>Business Administration and Economics</td>
</tr>
<tr>
<td>9</td>
<td>Kananur V. Chandras</td>
<td>Counseling</td>
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<td>10</td>
<td>Dawn J. Herd-Clark</td>
<td>History</td>
</tr>
<tr>
<td>11</td>
<td>W. Franklin Gross</td>
<td>Fine Arts-Music</td>
</tr>
<tr>
<td>12</td>
<td>Samuel Gyapong</td>
<td>Business Administration &amp; Economics</td>
</tr>
<tr>
<td>13</td>
<td>Tiffani Holmes</td>
<td>Chemistry</td>
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<tr>
<td>14</td>
<td>George N. Mbata</td>
<td>Biology</td>
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<tr>
<td>15</td>
<td>Komanduri S. Murty</td>
<td>Behavioral Sciences</td>
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<tr>
<td>16</td>
<td>Masoud Naghedolfeizi</td>
<td>Mathematics and Computer Science</td>
</tr>
<tr>
<td>17</td>
<td>Babatunde Ojo</td>
<td>Chemistry</td>
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<tr>
<td>18</td>
<td>Iheanyichukwu Osondu</td>
<td>History</td>
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<tr>
<td>19</td>
<td>Teresa Shakespeare</td>
<td>Biology</td>
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<tr>
<td>20</td>
<td>Washella T. Simmons</td>
<td>English and Foreign Languages</td>
</tr>
<tr>
<td>21</td>
<td>Cheryl Swanier</td>
<td>Mathematics and Computer Science</td>
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<tr>
<td>22</td>
<td>Patcharin Tragoonsirisak</td>
<td>Mathematics and Computer Science</td>
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<tr>
<td>23</td>
<td>Barbara Wyche</td>
<td>Behavioral Sciences</td>
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<tr>
<td>24</td>
<td>Nabil A. Yousif</td>
<td>Mathematics and Computer Science</td>
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<tr>
<td>25</td>
<td>Xiangyan Zeng</td>
<td>Mathematics and Computer Science</td>
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<tr>
<td>26</td>
<td>Jianmin Zhu</td>
<td>Mathematics and Computer Science</td>
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**CREATIVE WORKS OF ART**

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<th>No.</th>
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<th>Department</th>
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<tbody>
<tr>
<td>27</td>
<td>Ricky Callaway</td>
<td>Fine Arts</td>
</tr>
</tbody>
</table>

**SPOTLIGHT ON OUTSTANDING RESEARCH SCHOLARS**

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<thead>
<tr>
<th>No.</th>
<th>Scholar’s Name</th>
<th>College of Agriculture, Family Sciences &amp; Technology</th>
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<tr>
<td>28</td>
<td>Young Park</td>
<td></td>
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<tr>
<td>29</td>
<td>Komanduri Murty</td>
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</tbody>
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**2012-2013 EXCELLENCE AWARD WINNERS**

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<tr>
<th>No.</th>
<th>Scholar’s Name</th>
<th>Department</th>
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<tr>
<td>30</td>
<td>Gholamreza Keihany-Yazdy</td>
<td>Mathematics and Computer Science</td>
</tr>
<tr>
<td>31</td>
<td>Franklin Gross (Service)</td>
<td>Fine Arts-Music</td>
</tr>
<tr>
<td>32</td>
<td>Andrew Lee (Service)</td>
<td>Speech &amp; Mass Communications</td>
</tr>
</tbody>
</table>
1. Ajit K. Mahapatra  
Department: Agricultural Research Station  
Status: Faculty  
Type of scholarship: Article  
Title of scholarship: *Utilization of sweet sorghum for ethanol production* - a review  
Date(s): 2011  
Abstract: Sweet sorghum (Sorghum bicolor L. Moench) is an annual C 4 plant of tropical origin and is a potential renewable energy crop for ethanol production. This high carbohydrate producer crop can be cultivated on marginal lands, has low input requirements and is adapted to nearly all temperate climates. Because of its readily available fermentable sugars, sweet sorghum has been identified as one of the most promising biomass crop for fermentation into fuel ethanol. This paper includes a comprehensive review of unique properties of sweet sorghum as a crop, different approaches to converting stem juice into ethanol, fermentation techniques, and technical challenges of using sweet sorghum for biofuels. The application of these techniques and the expected advancements in this field are discussed. Economics of sweet sorghum compared to other biofuel feedstocks is also covered. This review will bolster efforts aimed at using sweet sorghum as a renewable energy crop for the ethanol industry.

2. Ajit K. Mahapatra  
Department: Agricultural Research Station  
Status: Faculty  
Type of scholarship: Peer-reviewed article  
Title of scholarship: *Reduction of E. coli O157:H7 on beef surfaces using low-voltage direct electric current and the impact on sensory properties*  
Date(s): 2011  
Abstract: Low-voltage direct current was applied to beef, inoculated with *Escherichia coli* O157:H7 on the surface covered with a thin film of 0.15 M NaCl solution. Experiments were conducted with 15, 30, and 45 mA/cm² currents; 1, 10 and 100 kHz frequencies; 30, 50 and 70% duty cycles, and 2, 8 and 16 min treatment durations. Increase in current intensity, frequency, duty cycle, and treatment duration increased the % reduction of *E. coli*. A maximum reduction of 98.9% was achieved. Sensory color analysis showed significant differences between treated and untreated beef. The maximum temperature rise of NaCl solution was 31.9 °C.

3. Ajit K. Mahapatra  
Department: Agricultural Research Station
4. Ajit K. Mahapatra

**Department:** Agricultural Research Station  
**Status:** Faculty  
**Type of scholarship:** Peer-reviewed article  
**Title of scholarship:** *Influence of moisture content and temperature on thermal conductivity and thermal diffusivity of rice flours*  
**Date(s):** 2011  
**Place:** International Journal of Food Properties 14 (3): 675-683  

**Abstract:** The thermal conductivity and thermal diffusivity for four types of rice flours and one type of rice protein were determined at temperatures ranging from 4.8 to 36.8 °C, bulk densities 535 to 875.8 kg m⁻³, and moisture contents 2.6 to 16.7% (w.b.), using a KD2 Thermal Properties Analyzer. The thermal conductivity of rice flours and rice protein increased with the increase in temperature, moisture content as well as with increase in bulk density. Thermal diffusivity decreased with increase in moisture content, increase in temperature and bulk density. The thermal conductivities values obtained were within the range of 0.045 to 0.124 W m⁻¹ K⁻¹ whereas the thermal diffusivity values were in the range of 0.094 to 0.138 mm² s⁻¹.

5. Ajit K. Mahapatra  

**Department:** Agricultural Research Station  
**Status:** Faculty  
**Type of scholarship:** Co-author, peer-reviewed article  
**Title of scholarship:** *Physical and mechanical properties of extruded poly(lactic acid)-based Paulownia elongata biocomposites*  
**Date(s):** 2013

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**Status:** Faculty  
**Type of scholarship:** Peer-reviewed article  
**Title of scholarship:** *Efficacy of low-voltage ac for inactivating surface adherence Escherichia coli O157:H7 on beef*  
**Date(s):** 2011  
**Place:** International Journal of Food Safety, Nutrition, and Public Health 4 (2/3/4): 214-224  

**Abstract:** Experiments were conducted using low-voltage alternating current (AC) to inactivate surface adherent Escherichia coli O157:H7 on beef samples. Beef samples (25 × 25 × 25 mm) were inoculated with E. coli and placed in sodium chloride solution which served as an electrolyte. Electrical current (AC) was applied to the beef samples. Frequencies of 1, 10, and 100 kHz and current intensities of 300 mA (15 mA/cm²), 600 mA (30 mA/cm²), and 900 mA (45 mA/cm²) at treatment durations of 2, 8, and 16 min were investigated. A 2.15 log10 reduction was achieved using a 16 min treatment time with 900 mA (45 mA/cm²) current intensity and 1 kHz frequency.
Paulownia wood flour (PWF), a byproduct of milling lumber, was tested as bio-filler with polylactic acid (PLA). Paulownia wood (PW) shavings were milled and separated into particle fractions and then blended with PLA with a single screw extruder. Mechanical and thermal properties were tested. Differential scanning calorimetry showed that PLA–PW blends containing smaller particle sizes had lower glass transition and melting temperatures compared to blends containing larger particle sizes. Biocomposites composed of smaller particles exhibited tensile strength values similar to neat PLA but had Young's modulus values that were 25% higher than neat PLA. However, elongation values decreased in all PLA–PW blends compared to neat PLA. Microscopic examination of the biocomposites revealed distinct differences in their morphologies. PLA–PWF blends exhibited color changes based on the size of the wood particles employed.

6. Ajit K. Mahapatra
Department: Agricultural Research Station
Status: Faculty
Type of scholarship: Peer-reviewed article
Title of scholarship: Effect of moisture content on thermal properties of cowpea flours
Date(s): 2013
Abstract: The effects of moisture content on thermal properties of cowpea flour were investigated on a range of 3.81% to 28.31% wet basis at 5% intervals, totaling six moisture levels, using a KD2 Pro Thermal Properties Analyzer. The considered thermal properties were thermal conductivity, thermal diffusivity, and specific heat. As the moisture content increased from 3.81% to 28.31 %, the thermal conductivity, thermal diffusivity, and specific heat increased from 0.109 to 0.213 W m-1 K-1, 0.099 to 0.136 mm2 s-1, and 1.092 to 1.573 MJ m-3 K-1, respectively. The data are necessary for design of equipment for handling, transportation, processing, and storage of cowpea flour.

7. George McCommon
Department: Veterinary Science and Public Health
Status: Faculty
Type of scholarship: First Author on paper & book chapter
Title of scholarship: Primitive Stem Cells are Present in the Blood of Adult Equines and Increases with Moderate Exercise or Ingestion of Aphanizomen
Date(s): July 19, 2013
Place: Journal of Autocoids
Abstract: Primitive stem cells have been discovered within the blood of adult mammals such as rodents, porcines, and humans. The current study addressed the issue of primitive stem cells in the blood of adult equines. Blood withdrawal by venipuncture from adult equines was performed following the guidelines of Fort Valley State University IACUC. Ten horses were used in this study: one Danish Oldenburg, three Standard breds and six Quarter Horses with age ranges of 5 – 20 years. The blood was processed for stem cell isolation and counting. All horses examined were noted to have circulating levels of primitive stem cells in their blood. Standard breds showed an increase of stem cell number with increasing age of the animals. In contrast, Quarter Horses showed an increase in stem cell number that paralleled an increase in the level of stress to the animal, regardless of age. All horses showed an increase in stem cell number in their blood after moderate exercise (10 minutes of cantering) and at time periods after ingestion of *Aphanizomenon flos-aquae*. These studies demonstrate the existence of primitive stem cells within adult equine blood. Larger sample sizes are needed to determine the significance of the effects of age, stress, trauma and ingested compounds on the number of circulating primitive adult stem cells in the blood of adult horses. Further studies are also needed to assess the applicability of using circulating primitive stem cells for the restoration and/or repair of tissues in the adult equine damaged by trauma or disease.

8. Seyedmehdi Mobini (With P. Scharko, & J. Johnson)

Department: Veterinary Science
Status: Faculty
Type of scholarship: Book Chapter
Title of scholarship: *Flock and Herd Health*
Date(s): 2012

Abstract: Authoritative yet easy to read, *Sheep and Goat Medicine, 2nd Edition* covers all the latest advances in sheep and goat medicine, including medical treatment, surgery, theriogenology, and nutrition. Full-color photographs and clear instructions provide the answers you need, guiding you through common procedures and techniques such as restraint for examination, administration of drugs, blood collection, and grooming; these descriptions are often accompanied by explanatory diagrams and charts. With diseases, surgeries, and treatments organized by body system, information is always easy to find. New to this edition are chapters on parasite control, nutritional requirements, and performing a necropsy. This reference is
unmatched for its comprehensive coverage of herd health, physical examination, anesthesia, and multisystem diseases. 34 authors from 18 universities contributed in this book.

9. Seyedmehdi Mobini (With O.M. Samples & D.A. Smith)
Department: Veterinary Science
Status: Faculty
Type of scholarship: Peer Reviewed Article
Title of scholarship: Importance of Collecting and Evaluating Rumen Fluid in Cattle
Date(s): 2013
Place: NAVTA Journal, USA, 2013
Abstract: This article help readers gain a step by step understanding of how to collect and evaluate rumen fluid in cattle for assessment of rumen function and abnormalities.

10. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Book chapter
Title of scholarship: Other minor species milk (Reindeer, Caribou, Musk Ox, Llama, Alpaca, Moose, Elk & others)
Date(s): June, 2013
Abstract: The milk of minor species is produced commercially only in certain regions of the world for human consumption, and only limited research reports have been available. However, their milk is important for the nutritional and socio-economic wellbeing of some people in specific parts of the world, where the production of cow milk is limited or impossible for climate reasons. Production and utilization, nutritional and chemical characteristics of the milk of sheep, goats, buffaloes, camel, equine, and yak are discussed in chapters 23 –27 and 29, because of their commercial importance. Reindeer, moose and mithun are also managed for milk production by people in the arctic regions and India, and their milk is discussed here together with that of other interesting minor species, which however have no commercial milk production, such as caribou, musk ox, llama, alpaca, pinniped, polar bear and elephant, and are compared with human milk with regards to potentials for human nutrition and health. In general, the milk of these species contains much higher levels of nutrients such as protein, fat and minerals than human milk. The marine mammals such as grey seals, sea lions as well as polar bears have extremely high fat (more than 42%), protein and total solids contents in their milk compared to human milk.

11. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Book chapter
Title of scholarship: Human Milk
Date(s): June, 2013

Abstract: Human milk from healthy and well-nourished mothers is the preferred form of feeding newborn infants. Human milk provides infants with nutritional needs and protection against infections. Breastfeeding has long term health benefits from childhood to adulthood. Breastfeeding has shown improved cognitive ability, prevention of obesity and other metabolic and immunological disorders. The World Health Organization recommended the exclusive breastfeeding to infants for the first six months after birth, and to continue up to two years of age or beyond. There is a wide variation in nutritional and non-nutritional components in human milk, meaning that human milk cannot be easily copied or mimicked. Yet feeding modified cow milk formula, an alternative to human milk, is popular. The practice of feeding infants with alternative formulae appears not to harm the health of the majority of infants. Human milk feeding practices vary across all cultures and all social economic divisions.

12. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Book chapter
Title of scholarship: Milk quality standards and control
Date(s): June, 2013

Abstract: Because of the critical importance of food safety and public health, standards of milk quality and quality control of milk and dairy products are strictly monitored by various state and federal regulatory agencies in different countries. Total bacteria and somatic cell counts are used worldwide to assess milk quality in terms of suitability for consumption and processing the milk for dairy products. To produce high quality milk and dairy products, HACCP (Hazard Analysis Critical Control Program) is recommended for the management of commercial dairy farms and milk processing plants. These control programs are aimed at avoiding abnormal and unsafe milk and dairy products entering into food channels for human consumption. There are many factors affecting composition, yield and safety of milk, its production, manufacturing and marketing, which are discussed in detail. Knowledge of epidemiology and etiology of intramammary infections is the major tool to control udder diseases and to evaluate the effects on milk nutritional profiles. Differential somatic cell counts as determined by the flow cytometric method offer advantages for the assessment of the immunological status of the udder and are useful as predictors of milk processing characteristics, even if changes of leukocyte populations in healthy and infected udders may be different across dairy species.

13. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Book chapter
Title of scholarship: Mammary secretion and lactation
Date(s): June, 2013

Abstract: Mammary or lacteal secretion or milk of domesticated and wild dairy species is the fundamental basis of dairy science. The milk from domestic dairy species provides the dairy industry with the resource for a multitude of dairy products, which supply essential foods and nutrition to humanity. Many factors are involved in milk secretion and production, and proper management and control systems on the dairy farm, of dairy animals and farm operating personnel are required for efficient and sanitary production of milk. The anatomical view of the mammary gland, mammogenesis, lactogenesis, galactopoiesis and involution of the mammary gland are discussed in detail.

Milk ejection and maintaining milk secretion by hormonal control, and comparative composition of blood and milk nutrients in terms of secretion of milk constituents are also discussed.

14. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Book chapter
Title of scholarship: Milk of other domesticated mammals (Pigs, Yaks, Reindeers, etc.)
Date(s): September, 2011

Abstract: The chemical composition of milk of different species is designed by natural selection to provide the nutritional needs of the neonate of the specific species. There are considerable differences in the basic composition of milk among different domesticated and wild mammals. Frequently little is known about the stage of lactation and milk sampling time from the gland, which can result in misleading inter-specific differences. Even under standard conditions of milk sampling, there are substantial short-term (diurnal and day-to-day) variations in composition, which are due to environmental conditions, feeding, management, season, locality, disease, and yield per day, as is also the case for the major domestic milk producers, the cow, buffalo, goat, sheep and camel. Colostrum contains much higher levels of total solids, protein and ash than the mature milk obtained 2 or 3 weeks after parturition in all species. The high protein percent in colostrum is due to the globulins, which contain the antibodies. Since the antibody titer of blood of the newborn is low, mammals such as cows, sheep, goats, horses and pigs require passive immunity from colostrum and its immunoglobulins.

15. Young W. Park
Department: Agricultural Sciences
Non-essential element concentrations of concentrated (Torba) yoghurts made from different types of milk and wheys.

September, 2011

The present study deals with the assessment of non-essential elements in ewe (Awassi) and goat (Damascus) milks and related products as yoghurt, torba yoghurt and whey. Quantitative determinations were performed by Varian Vista-MPX Simultaneous inductively coupled plasma optical emission spectrometer (ICP-OES). Alumimum, antimony, arsenic, boron, beryllium, cadmium, nickel, lead, silver, titanium, thallium and vanadium were determined for the both types of milk and related products. Barium was not detected in goats’ milk and their products. Among all the elements, Boron (B) was the most abundant and Beryllium (Be) was the lowest milks and related products. There were no significant differences among the non-essential element contents of ewe and goat Torba yoghurts. However, there were considerable differences between the element contents of the both Torba yoghurts and their wheys, indicating that removing of whey play a key role in the distribution of non-essential elements. The results showed that goats’ and ewes’ milks, and related products may be a source of 13 non-essential elements whereas low pH value of yoghurts and especially high Ca and P contents, low lactose of Torba yoghurt may eliminate toxicological risk.

Comparison of free fatty acid composition between low-fat and full-fat goat milk cheeses stored for 3 months under refrigeration

December, 2011

Differences in free fatty acid (FFA) compositions between low-fat (LF) and full-fat (FF: whole milk) goat cheeses were evaluated during 3 months at 4°C refrigeration. The two types of cheeses were manufactured using a bulk milk from the mixed herd of Saane, Alpine, and Nubian goat breeds. LF cheeses were made using LF milk after cream separation. FFAs of all cheeses were extracted in diisoprophyl ether using polypropylene chromatography column, and FFA concentrations were quantified using a gas chromatograph equipped with a fused silica capillary column. Moisture, fat, protein contents (%) and pH of fresh LF and FF cheeses were: 55.1, 52.3; 1.30, 25.6; 35.7, 22.5; 5.40, 5.42, respectively. The FFA contents (mg/g cheese) of fresh FF and LF cheeses prior to storage treatments for C4:0, C6:0, C8:0, C10:0, C12:0, C14:0, C16:0, C18:0, C18:1, and C18:2 were: 0.020, 0.072; 0.070, 0.035; 0.061, 0.055; 0.181, 0.167; 0.073, 0.047; 0.174, 0.112; 0.579, 0.152; 0.308, 0.202; 0.521, 0.174; and 0.057, 0.026, respectively. The respective FFA to total fatty acid ratios for 0, 1 and 3 months aged FF and LF cheeses were 8.44, 12.4; 6.31, 16.91; 12.03, 14.19. The LF cheeses generated
more FFA than FF cheeses, while actual FFA content in FF cheese was significantly higher than in LF cheese. The FFA contents of LF cheese at 0, 1 and 3 months storage were 48.0, 96.8 and 36.4% of those of FF cheese, respectively. It was concluded LF cheese generated higher amount of FFA than FF cheese, although total FFA content was significantly (P<0.05) lower in LF cheese than in FF cheese.

17. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Refereed Journal Paper
Title of scholarship: Evaluation of sensory properties and their correlation coefficients with physico-chemical indices in Turkish set-type yogurts
Date(s): October, 2011
Abstract: Sensory properties and physico-chemical parameters of 10 most popular brands of commercial set-type Turkish yoghurts were determined and correlation coefficients between the two indices were investigated. The results indicated that increases in volatile compounds (acetaldehyde, 2-butanone, 2-nanonane, ethyl acetate), titratable acidity, ash and fat contents inversely correlated with the overall acceptability score of the yoghurt. However, diacetyl, C4 to C12 free fatty acids, pH, whiteness index and texture influenced positively overall sensory acceptability. It was concluded that the overall acceptability of yoghurt is mainly governed by the fifteen volatile compounds as well as the physico-chemical properties analyzed. Thus, the overall acceptability of yoghurts was not influenced by single characteristic, but was rather in complex nature.

18. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Refereed Journal Paper
Title of scholarship: Characteristics of physico-chemical properties, volatile compounds and free fatty acid profiles of commercial set Turkish yogurt
Date(s): October, 2011
Abstract: Ten most popular brands of commercial Turkish set-type yoghurts were collected from local retail outlets in Hatay, Turkey for two separate periods, and analyzed for basic nutrients, physico-chemical properties, volatile aroma compounds and free fatty acid profiles to compare their differences among the yoghurt products. The results showed that there were significant differences (P<0.05, 0.01, or 0.001) and variations in physico-chemical indices, volatile aroma compounds and volatile free fatty acid profiles among the yoghurt brands, which ultimately influence the flavor quality of the product. Acetaldehyde was predominant volatile compound in yogurths, which followed by acetone, acetoin, diacetyl and ethanol. The level of
diacetly was inversely related to titratable acidity, acetaldehyde and ethanoic acid. From ketones with high carbones 2-undecanone and 2-pentadecanone were higher than 2-butanoic, 2-nanone and 2-tridecanone. These ketones are related to fat content of yoghurt. Among short chain free fatty acids, ethanoic (acetic) acid was the most abundant in yoghurts, followed by hexanoic, octanoic and butanoic acids. These differences in detected chemical compositions of volatile compounds and free fatty acids would be applicable to predict flavor, nutritional value, quality control or shelf-life of the commmercial set-type Turkish yoghurts.

19. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Refereed Journal Paper
Title of scholarship: *Production of infant formula analogs by membrane fractionation of caprine milk: Effect of temp treatment on membrane performance*
Date(s): December, 2011
Place: Foods and Nutrition Science Journal. 2: 1097-1104
Abstract: A two-step-cascade membrane separation by ultrafiltration was performed on caprine milk prepared under different temperature conditions to eliminate beta-lactoglobulin (β-Lg) from the whey fraction. Effects of temperature treatment and membrane pore size on the elimination of β-Lg and retention of alpha-lactalbumin (α-La) were examined to determine the optimum permeate fraction for production of infant formula analogues from caprine milk. The frozen raw caprine milk, with and without prior pasteurization, showed the best membrane separation performance. The permeates obtained from the 800/30kDa membrane combination showed the optimal results. The infant formula analog produced using the casein and 800/30kDa-permeate fractions of the treated caprine milk had the closest similarity to human milk with respect to the total protein content (1.3g 100g-1), beta-lactoglobulin content (1-2 %), and casein-α-lactalbumin ratio (0.6-0.7). Membrane performance during ultrafiltration of caprine milk was affected by temperature treatment of the milk prior to membrane separation.

20. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Refereed Journal Paper
Title of scholarship: *Determination of molecular weights of caprine milk proteins by Matrix-assisted laser desorption/ionization mass spectrometry*
Date(s): January, 2012
Abstract: Molecular weights (MWs) of major proteins in milk of three Korean dairy goat breeds were determined by matrix-assisted laser desorption/ionization time-of-flight (MALDI-TOF) mass spectrometry, after treatment of
milk samples with the reduction buffer used in capillary electrophoresis. MWs of caprine milk proteins were compared with those of Holstein milk counterparts using commercial bovine milk protein standards. MWs of αα-Lactalbumin (αα-La), β-Lactoglobulin (β-Lg), α- and β-casein standards were 14,197±3.4, 18,326±26.3, 23,591±13.0, and 23,967±12.8 m/z, respectively, while those of Holstein milk treated with the reduction buffer were 14,199±8.3, 18,397±25.9, 23,614±64.8, and 23,984±75.6 m/z, respectively. The respective MWs of αα-La in Saanen, Togerno, and Alpine milk were 14,194±27.2, 14,266±105.9, and 14,241±13.2 m/z, which were not different from those of the bovine milk. The respective MWs of β-Lg in corresponding caprine milk were 18,840±31.5, 18,856±26.3, and 18,857±21.3 m/z, which were higher (p<0.05) than those in the bovine milk. The MWs of β-CN in corresponding caprine milk were 23,860±27.2, 23,886±12.3, and 23,901±8.4 m/z, which were lower (p<0.05) than those in the bovine milk. The results indicated that MALDI-TOF mass spectrometry could be used for rapid determination of MWs of Korean caprine milk proteins without protein separation steps.

21. Young W. Park

Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Refereed Journal Paper
Title of scholarship: Effect of five years long-term frozen storage on sensory quality of Monterey Jack caprine milk cheese
Date(s): February, 2013
Abstract: A study was conducted to evaluate the effect of 5 years long-term extended frozen-storage on sensory quality of Monterey Jack semi-hard goat milk cheeses stored at -20°C. Three lots of Monterey Jack caprine milk cheeses were manufactured at the university dairy processing plant. Each lot of cheese was placed in 2’ x 4’ x 1.5’ (W x L x H) plastic pouches (FreshPak, Koch Supply, Kansas City, MO), vacuum packaged (Ultravac 250, Koch Supply) and immediately frozen at -20°C for five years. A trained sensory panel (n=7, 6 females, 1 male) evaluated the cheeses using a previously published lexicon for cheese flavor adapted for evaluating goat milk cheeses. Flavor and taste intensities were scaled using a 15-point intensity scale using the SpectrumTM descriptive analysis method. Flavor scores of the fresh cheese as the reference standard were compared with those of the 5 years frozen-stored samples. The results of sensory profiling by the trained panel showed that cooked/milk, sweet and milk fat flavors were significantly (P<0.05) reduced after the long-term frozen storage, while no changes occurred in diacetyl, whey, sour, salty, brothy and waxy flavors. A noticeable grainy/pasty texture was detected in the 5-year frozen-stored cheeses. However, flavor characteristics of the goat cheeses were not greatly changed suggesting that long-term frozen storage of goat milk cheese appeared to be feasible and applicable for later consumption and marketing.

22. Young W. Park

Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Refereed Journal Paper
Title of scholarship: Effects of reducing fat content on the proteolytic and rheological properties of Cheddar-like caprine milk cheese
Date(s): January, 2013
Abstract: High-moisture Cheddar-like cheeses made from caprine milk containing 3.6, 2.0, 1.0, and 0.1-0.5% fat were manufactured and their proteolytic and rheological properties compared after 1, 3, and 6 mo of aging at 4°C. The full-fat (FF), reduced-fat (RF), low-fat (LF), and non-fat (NF) cheeses contained 48.7, 50.0, 51.5 and 55.2% moisture and 26.3, 19.0, 9.65, and 1.50% fat, respectively. Although the amount of protein in the cheese increased as fat was reduced, the FF, RF, and LF cheeses had 40-44% degradation of beta-casein over the 6 mo of the study while minimal proteolysis (14%) occurred in the NF cheese. The NF cheese exhibited the highest hardness, cohesiveness, chewiness, elastic modulus, viscous modulus, and complex viscosity values due to the denser protein matrix. The FF and RF cheeses had similar rheological values. The fat content of high-moisture Cheddar-like goat cheese can be lowered to 19% without affecting its texture.

23. Young W. Park
Department: Agricultural Sciences
Status: Faculty
Type of scholarship: Book publication
Title of scholarship: Handbook of Milk of Non-Bovine Mammals - Chinese Version
Date(s): May, 2011
Place: CIP Press, Shannxi, China, published for Wiley-Blackwell Publishers
Abstract: Professor Young W. Park at Fort Valley State University as the senior editor and the 2nd editor Dr. George F.W. Haenlein (University of Delaware) have assembled dairy and nutrition experts from around the world to contribute to the Handbook of Milk of Non-Bovine Mammals. Secondary dairy species addressed are the goat, sheep, buffalo, mare, camel, yak, deer (reindeer), sow, llama, alpaca, moose, musk ox, caribou, ass, elk, pinniped, polar bear and human. The book comprehensively covers the most important aspects of milk production including: trends and methods of raw milk production in different regions; compositional, nutritional, therapeutic, physico-chemical, and microbiological characteristics of the milks; processing technology; and types, distribution and consumption of the manufactured products from minor species milks. Of special note is coverage comparing specific human health attributes of milk from the various species, including nutritional, allergenic, immunological, and cultural factors. Because secondary dairy species have such a significant impact on human well-being and survival in many parts of the world, the Handbook of Milk of Non-Bovine Mammals is an essential reference book of leading-edge information for dairy scientists, nutritionists, food chemists, allergy specialists, health professionals, and allied professionals.

24. Young W. Park
Department: Agricultural Sciences
Department: Veterinary Science and Public Health
Status: Faculty
Type of scholarship: Refereed publication
Title of scholarship: Taking the Sting out of Death: A Christian Educational Perspective
Date(s): Fall 2012
Place: Education Around the World, Volume 133, 1.
Abstract: Every day someone is faced with the news that they are dying or that they have a loved one who is dying. Often times this is very unsettling and fear creeps into their hearts for one reason or another. This paper is an attempt to identify the most common reasons for that fear, and offer suggestions for handling that fear in a Christian manner.

Department: Veterinary Science and Public Health
Status: Faculty
Type of scholarship: Published refereed article textbook review
Title of scholarship: Physical Activity and Childhood Obesity: Strategies and Solutions for School Parents
Date(s): Summer 2012
Place: Education Around the World, Volume 132, 4.
Abstract: One of the reasons American children tend to be gaining weight now more than in previous generations is that children expend significantly less energy on a daily basis than their parents and grandparents did in their youth. This article proposes effective strategies and solutions for schools and parents to use when implementing weight loss/control programs.
27. Oreta M. Samples
Department: Veterinary Science and Public Health
Status: Faculty
Type of scholarship: Published article
Title of scholarship: The Handling and Care of the Common Green Iguana
Date(s): Spring 2011
Place: NAVTA Journal
Abstract: Veterinary technicians are often faced with the most unlikely pets in need of treatment and care within a clinical setting. For this reason, it is important to be familiar with a variety of animals that at first may seem like unlikely pets. One such animal, the common green iguana, a member of the lizard family is quickly becoming a favored pet in need of treatment and TLC.

28. Oreta M. Samples
Department: Veterinary Science and Public Health
Status: Faculty
Type of scholarship: Published article
Title of scholarship: Are You Ready to Go? A Guide to the Best in Veterinary Conventions
Date(s): Convention Issue 2013
Place: The NAVTA Journal
Abstract: With no less than four major veterinary conferences available throughout the year, veterinary technicians have more choices than ever before when selecting a conference or CE opportunities. This article introduces the reader to a variety of great veterinary technician experiences to be had in chronological order.

29. Oreta Samples
Department: Veterinary Science and Public Health
Status: Faculty
Type of scholarship: Published article
Title of scholarship: Diagnosis of Internal Parasites
Date(s): July/August 2013
Place: Today's Veterinary Practice Journal, Vol. 3, Issue 4
Abstract: The diagnosis of internal parasites in companion animals continues to evolve. Efficient methods that allow clinicians to diagnose infections more quickly and implement treatment earlier have helped pets live longer, healthier lives. Because some internal parasites spread zoonotic diseases, such advances not only protect veterinary personnel but also pet owners.

30. Oreta M. Samples (With S. Mobini & D.A. Smith)
Status: Faculty
Type of scholarship: Published article
Title of scholarship: Evaluating Rumen Fluid in Cattle
Date(s): June/July 2013
Ruminant animals are those which possess a stomach with four complex cavities and characteristically regurgitate undigested food from the rumen and masticate while at rest. Ruminant animals have the ability to digest food through the fore-stomach which makes up three of the four compartments. The rumen plays an important role in the overall health and digestive processes of these animals and veterinary technicians should be familiar with the various lab procedures which are utilized to assess rumen function and abnormalities.

31. Mahipal Singh
Department: Animal Science / Biotechnology
Status: Faculty
Type of scholarship: Peer Reviewed Journal Article
Title of scholarship: Identification of single nucleotide polymorphisms in the agouti
Date(s): 2013
Abstract: The agouti-signaling protein (ASIP) plays a major role in mammalian pigmentation as an antagonist to melanocortin-1 receptor gene to stimulate pheomelanin synthesis, a major pigment conferring mammalian coat color. We sequenced a 352 bp fragment of ASIP gene spanning part of exon 2 and part of intron 2 in 215 animals representing six goat breeds from Nigeria and the United States. Twenty haplotypes from nine mutations representing three intronic, one silent and five missense mutations were identified in Nigerian goats. Approximately 89 % of these goats carry haplotype 1 (TGCCATCCG) which seems to be the wild type configuration of mutations in this region of the gene. Although we found no association between these polymorphisms in the ASIP gene and coat color in Nigerian goats, in-silico functional analysis predicts putative deleterious functional impact of the p.L45Wmutation on the basic amino-terminal domain of ASIP. In the American goats, two intronic mutations, g.293G >A and g.327C >A, were identified in the Alpine breed, although the g.293G >A mutation is common to both American and Nigerian goat populations. Overall, there was no clear association of this portion of the ASIP gene with coat color variation and need further investigation in other portion of the gene.

32. Mahipal Singh
Department: Animal Science / Biotechnology
Status: Faculty
Type of scholarship: Peer Reviewed Journal Article
Title of scholarship: Outgrowth of fibroblast-like cells from goat skin explants in three different culture media and the establishment of pure cell l
Date(s): 2011
Abstract: Three different commercially available media, known to support human and porcine-specific fibroblast cultures, were tested for their growth potential on goat skin explants. Although outgrowth of fibroblasts was observed in all 3 media tested, porcine-specific media exhibited higher rate of growth. Using this media, three fibroblast cell lines (GSF289, GSF737, and GSF2010) from ear skin explants of normal healthy dairy goats of Kiko and Saanen breed were successfully established. Liquid nitrogen stocks of these frozen cells had a viability rate of 96.2% in in vitro cultures. These cells were morphologically indistinguishable from the cell stocks prior to freezing. Analysis of the growth of a fifth passage culture revealed an ‘S’ shaped growth curve with a population doubling time of 25 h. The cell lines were negative for microbial, fungal and mycoplasma contamination. These goat skin derived fibroblast cell-lines, and the simple method of their isolation and freezing with high rate of viability, will provide excellent biotechnology to study molecular mechanisms that regulate fibroblast function and also for genetic manipulation of goat and sheep.

33. Mahipal Singh
Department: Animal Science / Biotechnology
Status: Faculty
Type of scholarship: Peer Reviewed Journal Article
Title of scholarship: Characterization of GSF289: a fibroblast cell-line derived from goat ear skin explants at FVSU
Date(s): 2011
Abstract: Earlier, we established three fibroblast cell lines from ear skin explants of normal healthy dairy goats, of Kiko and Saanen breed (In Vitro Cell. Dev. Biol.-Animal 2011, 47: 83-88). These cell-lines revealed a viability rate of 96.2%, displayed a typical ‘S’ shaped growth curve and were free from microbial, fungal and mycoplasma contamination. We further characterized these cell lines and, in this communication show the cytogenetic analysis and the genetic transfection of GSF289 cells. The GSF289 cell-line which originated from Saanen breed of goats was successfully transfected with pcDNA3.1/NT-GFP plasmid vector containing green fluorescent protein (GFP) gene under human cytomegalovirus (CMV) promoter. The efficiency of transfection, as measured by flow cytometry, was 14.5% after 4 days of culture. The cytogenetic analysis performed on 29 G-banded metaphase cells revealed that the cell line has a normal male goat karyotype consisting of 58 autosomes and two XY sex chromosomes. These results suggest that GSF289 cell-line with a normal karyotype, having a high rate of proliferation, and its ability to be easily transfected with plasmid DNA vectors is an excellent tool to study molecular mechanisms that regulate fibroblast function as well as genetic manipulation of small ruminants.

34. Mahipal Singh
Department: Animal Science / Biotechnology
Status: Faculty
Type of scholarship: Peer Reviewed Journal Article
Title of scholarship: In vitro culture of fibroblast-like cells from postmortem skin of Katahdin sheep
stored at 4°C for different time intervals

Date(s): 2011
Place: In Vitro Cell and Developmental Biology-Animal.

Abstract: Live animals have been produced recently from animal tissues preserved for decades at frozen temperatures with or without cryoprotectants. However, the tissues in these studies were cryopreserved within few hours of animal death to obtain culturable live cells as nuclear donors. How long the postmortem tissues retain cellular integrity, without losing the viability and potential to in-vitro culture is not known. In this paper using sheep as a model system, we developed a simple in-vitro culture procedure to study postmortem cell survival. Using this procedure we observed growth of fibroblast-like cells in sheep upto 56 hrs of animal death. Furthermore, we demonstrated that these cells were comparable to controls (fresh tissue derived cells) in their growth profile. These results suggest that skin tissues of sheep, and perhaps other animal species, with superior traits are effectively preserved at cellular level (at least for 56 h) at normal refrigerating conditions, without need of complicated cryopreservatives / cryotanks, that are usually not available at small farms. It will help farmers in their decision making to preserve superior animal germplasm.

35. Mahipal Singh
Department: Animal Science / Biotechnology
Status: Faculty
Type of scholarship: Book Chapter
Title of scholarship: Microbial applications in agriculture and the environment: A Broad Perspective
Date(s): 2011

Abstract: Microbial diversity is an important component of the overall global biological diversity. Recent technological advances in exploring microbial diversity have revealed that a large proportion of microorganisms are still undiscovered, and their ecological roles are largely unknown. Careful selection of microbes and intelligent design of test assays are the key steps in developing new technologies for effective utilization of microorganisms for sustainable agriculture, environmental protection, and human and animal health. It is expected that microbes in combination with developments in electronics, software, digital imaging, and nanotechnology will play a significant role in solving global problems of the twenty-first century, including climate change. These advances are expected to enhance sustainability of agriculture and the environment. This chapter provides an overview of recent trends in microbial exploitation in growth promotion and sustainable environment mainly through bioremediation, biodegradation, and biosorption processes. Recent uses and application of microbes such as biosensors, synthesis of nanomaterials, and probiotics are also discussed.
36. Mahipal Singh

Department: Animal Science / Biotechnology
Status: Faculty
Type of scholarship: Book Chapter
Title of scholarship: Bacterial quorum sensing and its interference: methods and significance
Date(s): 2011

Abstract: Bacteria use the language of low-molecular-weight ligands to assess their population densities in a process called quorum sensing (QS). Different types of quorum sensing pathways are present in Gram-negative and Gram-positive bacteria. Signal molecules most commonly used in Gram-negative bacteria are acyl homoserine lactones. In recent years, a substantial amount of literature and data have been available on bacterial QS. Recently, interest in modulation of quorum sensing with different approaches has increased among scientific communities. In this chapter, we provide an updated overview on bacterial QS, assays and methods for detecting signal molecules, and various approaches to inhibit AHL-based quorum sensing. Significance of QS interference by prokaryotic and eukaryotic organisms in relation to health and the environment is discussed here.

37. Mahipal Singh

Department: Animal Science / Biotechnology
Status: Faculty
Type of scholarship: Peer Reviewed Journal Article
Title of scholarship: Characterization of a highly repetitive DNA sequence in Camellia sinensis (L.) O. Kuntze genome
Date(s): 2011
Place: Journal of Biotech Research (2011) 3: 78-83
Abstract: Repetitive DNA sequences in the genome, although, are commonly recognized very useful to differentiate individuals, they have not been explored extensively in tea genome. Here we report characterization of novel repetitive motifs in a genomic DNA clone, designated as pMST11. It was isolated and sequenced from a genomic library of Camellia sinensis (L.) O. Kuntze by reverse genomic hybridisation approach. Sequence analysis of the insert displayed a highly A+T rich (66.8%) fragment of 894 base pairs (bp) containing a 168 bp single open reading frame in minus strand. The insert exhibited twelve 15-45 bp long direct repeats, of which, six were novel, non-overlapping and more than 30 bp long. The insert sequence of the clone displayed two unique microsatellite loci, having dinucleotide repeats (AG)15 and (AG)17. Hybridization of the pMST11 clone with the tea genomic DNA, digested individually with 17 restriction endonucleases, exhibited a continuous smear suggesting that one or more repeats are highly dispersed through-out the tea genome. Dot blot analysis of the 894 bp insert sequence with genomes of 10 out of 12 different species
exhibited positive signals of various intensities. The role of these repeat sequences in context of evaluating genetic variation is discussed.

38. Mahipal Singh

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<th>Department:</th>
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<td>Title of scholarship:</td>
<td><em>Identification of single nucleotide polymorphisms in the agouti signaling gene in goat breeds in tropical &amp; temperate climate</em></td>
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<td>2013</td>
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Abstract: The agouti-signaling protein (ASIP) plays a major role in mammalian pigmentation as an antagonist to melanocortin-1 receptor gene to stimulate pheomelanin synthesis, a major pigment conferring mammalian coat color. We sequenced a 352 bp fragment of ASIP gene spanning part of exon 2 and part of intron 2 in 215 animals representing six goat breeds from Nigeria and the United States. Twenty haplotypes from nine mutations representing three intronic, one silent and five missense mutations were identified in Nigerian goats. Approximately 89% of these goats carry haplotype 1 (TGCCATCCG) which seems to be the wild type configuration of mutations in this region of the gene. Although we found no association between these polymorphisms in the ASIP gene and coat color in Nigerian goats, in-silico functional analysis predicts putative deleterious functional impact of the p.L45W mutation on the basic amino-terminal domain of ASIP. In the American goats, two intronic mutations, g.293G >A and g.327C >A, were identified in the Alpine breed, although the g.293G >A mutation is common to both American and Nigerian goat populations. Overall, there was no clear association of this portion of the ASIP gene with coat color variation and need further investigation in other portion of the gene.
39. Kristen E. Broady
Department: Business Administration and Economics
Status: Administrator
Type of scholarship: Published Article
Title of scholarship: Credit: From Accelerator to Primary Means of Purchase
Date(s): October 2012
Place: Journal of Academy of Business and Economics, Volume 12, Number 3, 2012
Abstract: Alice in Wonderland is the 1865 novel by Charles Lutwidge, which tells the story of Alice who falls down a rabbit hole into a fantasy world populated by peculiar creatures (Lutwidge, 1865). In quite the same manner, the U.S. economy has fallen into a credit-fueled fantasy world, a world where the amount of consumer revolving credit outstanding has increased 142 percent in the last 15 years. The consumer credit or accelerator of the 1920s, characterized by installment buying – a down payment and manageable monthly payments, has become the primary means of purchase for many consumers today. This paper provides a summary of the relevant history concerning the role of credit from accelerator to primary means of purchase, outlines the literature that has been conducted on consumer credit debt, and sets forth several veins for future research.

40. Kananur V. Chandras (With Murty, K. S., & Vyas, A. G.)
Department: Counseling
Status: Faculty
Type of scholarship: Refereed Published Articles
Title of Scholarship: Governance and management of an academic institution: American experience
Date(s): 2011
Place: Journal of Management Research in Emerging Economies, 1(1), 102-119
Abstract: Governance and management of academic institutions have attracted serious research attention. This article discusses different issues of managing Academic Institutions in post modern service era in the parlance of various concept of organization management with special reference to Historically Black Colleges and Universities (HBCU).

Department: Department of Counseling
Status: Faculty
Type of scholarship: Refereed Published Articles
Title of Scholarship: Facebook and social media: Implications for counseling college students
Date(s): 2011
Place: VISTAS, American Counseling Association, 68, 1-12
Abstract: As an application that promotes a deep sharing between the individual and other Facebook users, Facebook seems to employ therapeutic variables similar to those that counselors use to promote openness. For example, according to Corsini and Wedding (1995), empathy, unconditional positive regard, and congruence are the key qualities that the counselor provides within session. When these variables are present, the client is more apt to open up and relay information that is related to pathology. When the counselor displays congruence (i.e., genuineness), unconditional positive regard (i.e, non-critical stance toward client), and empathy (i.e, an accurate understanding of the client), the client likely will "open" up to the counselor. Facebook and other social media outlets provide an outlet that allows clients to disclose rich and personal information regarding the self. In this regard, Facebook may be an efficient tool to gather pertinent counseling information.

42. Kananur V. Chandras (With Chandras, S. V., & DeLambo, D.)
Department: Counseling
Status: Faculty
Type of scholarship: Refereed Published Articles
Title of Scholarship: Counseling Asian-American Indians from India: Implications for Training Multicultural Counselors
Date(s): 2012
Place: VISTAS, 69, 1-12, Online Journal, Article 15
Abstract: Studies continue to reveal that Asian-Americans from India are being ignored and treated differently in American society. There is a widespread belief that Asian-American Indians are a model minority who are not in need of any special consideration and that they underuse or terminate counseling prematurely. This paper deals with socio-cultural differences and the implications for training multicultural counselors to counsel Asian-Americans from India.

43. Dawn J. Herd-Clark
Department: History
Status: Faculty
Type of scholarship: published article
Title of scholarship: Congressional Progressive Caucus Agenda: Challenges and Opportunities for 2012 Elections
Date(s): 2012
Place: Race, Gender & Class 20, no. 1-2 (2013): 56-77
Abstract: This paper discussed selective hot-topic areas for the progressive caucus as the election of 2012 drew near. It explores the many areas that Americans and concerned about today, including: immigration, house foreclosures, national banks and the education system. The paper delved into the many opportunities there were for President Obama to tap into in order to prove himself as the best presidential candidate. Political factions aside, the progressive vote is the vote of the future, so long as the candidates uphold the ideals and stay true to the caucus' intentions.
44. W. Franklin Gross
Department: Fine Arts - Music
Status: Faculty
Type of scholarship: Article in Monograph Publication
Title of scholarship: Biographical / Musical
Date(s): Published August 2013
Place: NAAAS and Affiliates "Race, Gender and Sexuality" Conference in Orlando, FL
Abstract: Dr. Gross presented a paper called "Ride to Glory, Ride and Sing" for the National Association of African American Studies. The paper, later published in a monograph, was in two parts; one biographical and one musical. First, Gross wrote on the life of Congressman John Lewis, emphasizing his role in the Freedom Rides and Civil Rights Movement. Most of the research was based on Lewis' book, "Walking with the Wind." Next in the paper, Gross presented an original choral selection, called "Ride and Sing," which has since been premiered and recorded by the Philander Smith College Choir in Arkansas.

45. W. Franklin Gross
Department: Fine Arts - Music
Status: Faculty
Type of scholarship: Co-Arrangement of Music Scores with Blues Professional, followed by Performance
Title of scholarship: "Sir Charles and the Sounds of Seven Blues Giants" (curator, Dr. Gross)
Date(s): September 26, 2011 (Fort Valley GA) / January 15, 2012 (Thomaston GA)
Place: Austin Theatre, Fort Valley GA / Thomaston-Upson Community Center
Abstract: In September 2011, Dr. Gross (along with Bobby Dickey and the financial assistance of the FVSU Fine Arts Department) brought Blues Master, Sir Charles Atkins to Fort Valley for a landmark performance. Sir Charles Atkins and Dr. Gross co-arranged brass charts for a concert which included songs by Ray Charles, Frank Sinatra, Louis Jordan and Fats Domino. The brass performers included FVSU music professors and instructors: Leonard Giles, Randolph Lindsey and Darnell Springer. The concert was presented to a packed house of faculty, students, staff and the community. The brass charts have since been used by Charles Atkins, who is Blues Professor at Florida State University, and the scores have been rented by independent promoters for other concerts, including one in Thomaston, GA through the "Thomaston Upson Arts for the Community Organization." Dr. Gross makes the music scores available to independent concert promoters as needed/requested. In an age when academia embraces the Blues far less than Classical Music, Sir Charles Atkins said it best at Fort Valley's historic Austin Theatre, with the support of Dr. Gross and the FVSU Fine Arts Department: "The Blues is the Heart of Western Music!"

46. Samuel Gyapong
Department: Business Administration & Economics
47. Tiffani Holmes (With Kolodziejczyk, W., & Jodkowski, J. Hill, G.)

Department: Chemistry
Status: Faculty
Type of scholarship: Published article
Title of scholarship: Conformational analysis of flephedrone using quantum mechanical models
Date(s): December 2012
Place: J Mol Model DOI 10.1007/s00894-012-1673-z
Abstract: Flephedrone is an analogue of cathinone - chemically similar to ephedrine, cathine and other amphetamines. Conformations of all isomers of flephedrone have been studied at the quantum chemical level. Calculations have been performed using DFT and MP2 methods with two basis sets - 6-31G and 6-31G (d,p). Results show that there are low energy conformers for the ortho, meta, and para isomers that are connected by way of low-barrier transition states. Boltzmann distribution of population predicts the highest population for the 1-meta conformer with a 10% increase in solution. The molecular electrostatic potential surface data for each molecule has been calculated revealing likely reaction sites.

48. George N. Mbata

Department: Biology
Status: Faculty
Type of scholarship: Published Research Article
Title of scholarship: The Potential for Controlling Pangaeus bilineatus (Heteroptera: Cydnidae) Using a Combination of Entomopathogens and Insecticide
Date(s): 2011 - 2013
Place: Southern GA. J. Econ. Entomol. 106(5): (2013)
Abstract: The peanut burrower bug, Pangaeus bilineatus (Say), is an important pest of peanut in the southern United States. Current control methods for this pest, which are based on the use of chemical insecticides, have not been successful.
Our objective was to determine if entomopathogens applied alone or in combination with a standard chemical insecticide would provide superior levels of P. bilineatus mortality compared with the standard chemical applied alone. Specifically, we investigated the efficacy of an entomopathogenic nematode, and a fungus applied alone or in combination with chlorpyrifos. When applied as single treatments, the two entomopathogens were not pathogenic, that is, they did not cause mortality in P. bilineatus adults that was different from the nontreated control. However, 3 and 7 d posttreatment, the combination of the nematode and chlorpyrifos caused higher mortality than the nematode, fungus, or insecticide alone, or the combination of chlorpyrifos and fungi. The nature of the interaction between the nematode and chlorpyrifos was synergistic, which is of particular interest, given that this is the first time a synergy is being reported between a nematode that was not pathogenic when applied alone and a chemical insecticide. Based on the observation of synergy, the combination of the nematode and chlorpyrifos should be investigated further for potential adoption in the management of P. bilineatus.

49. Komanduri S. Murty (With Julian Roebuck)
Department: Behavioral Sciences
Status: Faculty
Type of scholarship: Published articles
Title of scholarship: The Actions of the Criminal Justice System as a Disaster Precipitant: The 1992 Los Angeles Riot.
Date(s): 2012
Abstract: A disaster is an event which causes extensive destruction of property, death, or injury in a manner of widespread disruption and individual trauma (Hartsough and Myers, 1987). In this chapter we examine the Los Angeles race riots among other riots as manmade disasters, which are threats to societal peace, and a challenge law enforcement officials who strive for social order. Riots consist of communitywide turbulence and disorder that surpass civil disobedience, and devolve into the counterproductive realm of protractile violence, a violence either targeted at a particular group and/or particular physical environment (for example, property damage). Riots fall in a similar category to other intentional disturbances such as acts of terrorism, crowd assaults on particular persons or groups, rebellions, revolutions, and wars. While not always motivated by exactly the same goals, or predictable, riots are usually perceived by participating discontented groups as the most effective means to engender exigent political or social change of one kind or another. Our research analysis discloses that criminal justice riot control measures, or dearth thereof may contribute to, an even enhance existing riots, as well as encourage the incidence of future riots.

50. Komanduri S. Murty (With Celeste White and Gerry White)
51. Komanduri S. Murty (With Jehad Yasin)

Department: Behavioral Sciences
Status: Faculty
Type of scholarship: Published articles
Title of scholarship: Characteristics of Afro-Descendants in Mexico: A Survey of Costa Chica Area of the Oaxaca and Guerrero States (eds.)
Date(s): 2012
Abstract: The purpose of the present study is to document the existence and experiences of the Afro-descendant population in Mexico’s Costa Chica Region. The Mexico governments have consistently denied the existence of the population, which made socioeconomic efforts for this marginalized nonstarters. Without government recognition, the Afro-descendant population did not easily garner the attention of international funders who might have been willing to improve transportation and educational institutions, alleviate poverty, and strengthen healthcare delivery. The sample frame for this study involved two states—Oaxaca and Guerrero within the Costa Chica region. Then a total of 22 communities from these two states were selected based on the recommendations of Mexico Negro, AC, in terms of concentrations of Afro-descendant population. Funded by the United Negro College Fund Special Programs, the study covers information on: Head of the Household Characteristics; Household Population Composition; Employment and Occupation Data; Housing Characteristics; Household Economics; Household Health; and, Land Ownership and Utilization.

52. Komanduri S. Murty (With Julius Scipio)

Department: Behavioral Sciences
Status: Faculty
Abstract: From Reconstruction until the end of the early 1920s historically black colleges evolved from institutions focused solely on survival to stable institutions controlled by autocratic management and governance structures. Such systems developed due to the conditions under which HBCUs operated. For example, during the HBCU formational period [1865-1920] white citizens had the ability to shutter a school for the slightest breech of social tradition. In light of this fact HBCUs presidents managed their schools like autocrats tolerating no disobedience. This chapter will focus on: (1) Initial management strategies to ensure survival of HBCUs in the wake of the Civil War; (2) Management of HBCUs during the early- to mid-twentieth century; and (3) Management of HBCUs from 1945, the end of World War II, to 1954 the date of Brown v Board of Education of Topeka case.

53. Komanduri S. Murty  
Department: Behavioral Sciences  
Status: Faculty  
Type of scholarship: Published articles  
Title of scholarship: Continuing the Fiefdom: A Matter of Governance  
Date(s): 2012  

Abstract: As America entered the 1960s, HBCUs faced new challenges. Many of these issues were caused by the landmark cases McLaurin v. Oklahoma State Regents, and Brown v. Board of Education of Topeka, which ended segregation in public education. In the wake of these decisions, the percentage of African-Americans attending HBCUS declined significantly. In addition, the period witnessed the closure of more than a dozen HBCUs. Yet, in the face of these new challenges most HBCUs continued to operate with autocratic management structures designed to face the problems of a bygone era. This chapter will examine the development and impact of the autocratic management system in the period after the McLaurin and Brown cases. It also will examine modern day challenges to the authoritarian management system.

54. Komanduri S. Murty (With Julius Scipio)  
Department: Behavioral Sciences  
Status: Faculty  
Type of scholarship: Published articles  
Title of scholarship: Compliance and Accreditation: Pressures and Challenges  
Date(s): 2012

Abstract: Knoxville, Morris Brown, Mary Holmes, and Barber Scotia Colleges are just some of the HBCUs that lost regional accreditation in the last decade. Indeed since the early 1970s nearly 50% of America’s historically black colleges have struggled with issues of accreditation. For students of most HBCUs, who depend heavily on federal financial aid, the loss of accreditation can be devastating since the institutions could no longer administer federal assistance, leaving students without means to pay for their education. Yet, despite a steady stream of problems with accreditors, HBCU leaders appear incapable of meeting the challenge. This chapter will examine the often-contentious relationship between HBCUs and regional accreditors. It also will provide viable options for institutions to overcome these challenges.

55. Komanduri S. Murty (With Julius Scipio)
Department: Behavioral Sciences
Status: Faculty
Type of scholarship: Published articles
Title of scholarship: Going Global: The International Focus
Date(s): 2012

Abstract: Scholte defined globalization as the “spread of trans-planetary connections between people,” which has both economic and social impacts. The economic impacts relate to globalization in international trade, foreign direct investment, and capital market flows. For example, the share of international trade in total output in developing countries grew from 33.8% to 48.9% between 1990 and 2001. On the other hand, the social impact can be understood from the diversity point of view, in that the United States, a country of immigrants, is composed of various cultural and ethnic groups. This suggests a compelling need for American institutions and citizens to develop fluency in foreign languages and international studies. This research examines the role of HBCUs played in internationalization in the past as well as opportunities and challenges exist in the present and in the future.

56. Komanduri S. Murty (With Meigan Fields)
Department: Behavioral Sciences
Status: Faculty
Type of scholarship: Published articles
Title of scholarship: Private vs. Public: The Politics of Access with Opportunity
Date(s): 2012
Abstract: Numerous factors determine the decision as to which college or university students attend. While many of these factors are relative to the individual in terms of the ability to pay, location, family tradition, and/or program offerings, several factors may be directly influenced by the colleges and universities. Historically Black Colleges and Universities, both private and public, employ different recruitment and retention methods to attract a student seeking a higher education. For example, many HBCUs maintain an open admissions policy, while others are more selective. The ability to receive financial assistance also is a tool used by many HBCUs to attract students. For example, a handful of wealthy HBCUs and most predominately white institutions use tuition discounting, in the form of scholarships, as a means of attracting top students. However, for poor HBCUs with limited endowments tuition discounting is not an option. Consequently, to attract students these institutions are forced to recruit low performing high seniors who often have academic difficulty. Unfortunately, such students often come with a host of problems such as increased remediation costs; and low retention and graduation rates. This chapter will systematically examine the politics of access; its long-term role on shaping the future of HBCUs.

Department: Behavioral Sciences  
Status: Faculty  
Type of scholarship: Published articles  
Title of scholarship: *Congressional Progressive Caucus Agenda: Challenges and Opportunities for 2012 Elections*  
Date(s): 2013  
Place: Journal of Race, Gender & Class 20(1-2):56-77, 2013  
Abstract: This paper discusses selective hot-topic areas for the progressive caucus as election day for 2012 draws closer. It explores the many areas that Americans are concerned about today, including: immigration, house foreclosures, national banks and the education system. We delve into the many opportunities there are for the incumbent president to tap into in order to prove himself as the best presidential candidate once again. Political factions aside, the progressive vote is the vote of the future, so long as the candidates uphold the ideals and stay true to the caucus’ intentions.

58. Komanduri S. Murty (With Jimmy McCamey)  
Department: Behavioral Sciences  
Status: Faculty  
Type of scholarship: Published articles  
Title of scholarship: *Maternal Health and Maternal Mortality in Post War Liberia: A Survey Analysis*  
Date(s): 2013
Abstract: This paper examines the data collected from two surveys related to maternal health and maternal mortality in Post War Liberia: (a) a survey of 277 Liberian women in reproductive ages (13-49) in terms of age, current marital status, number of pregnancies, number of live births, number of children living at present, extent of seeking assistance from health workers/professionals for delivering babies, reasons for not seeking professional assistance, status of receiving prenatal care for pregnancies, reasons for not seeking such assistance, number of sisters ever had and those surviving, details of deceased sisters, number of sisters dying for maternal causes, perceptions of seriousness of problems of maternal health, and opinions related to common threats of maternal health during and after pregnancy in their region; and, (b) a survey of 203 health care professionals/providers in terms of their highest educational qualification, position and rank, age, gender, experience, self-involvement in providing prenatal services to pregnant women and/or delivering babies, whether or not trained to deliver babies, record keeping, volume of services rendered to pregnant women and rate of success during the past year, perceived maternal mortality rate and associated causes, organizational description and capacity, perceived roles of health professionals and of adult women in reproductive ages to improve the conditions of maternal health and mortality in their region. Both surveys were conducted with the funding from the United Negro College Fund Special Programs and were intended to gain knowledge for developing capacity of health practitioners assigned to rural clinics and health centers to deliver better services to the most marginalized communities of women and children in an agrarian society recovering from two decades of war.

59. Masoud Naghedolfeizi
Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Published Article
Title of scholarship: Implementation of Software Engineering Techniques in System Analysis and Design Courses
Date(s): Nov. 2012
Place: Fall Conference Proceedings Mid-Southeast Chapter of the ACM, Gatlinburg, Tennessee
Abstract: Students majoring in Computer Information Systems (CIS) at Fort Valley State University are required to complete a sequence of two courses in System Analysis, Design, and Implementation. In the first course, a comprehensive overview of software engineering techniques with emphasis on the system development life cycles (SDLC) is presented. The first three phases of SDLC: system planning, analysis, and design are thoroughly described and discussed. After students demonstrate sufficient depth of the subject matter, they are divided into groups of three or four in order to carry out an information system project as a major course requirement for their final grade. Each group will select a project related to a real-world business information system that will be designed and implemented during the two semesters. Some examples of projects include payroll, registration, inventory, airline reservation, and hotel reservation systems. Students are required to perform project
planning, analysis, inputs/outputs design, and collaboration with an industry related to their project in the first sequence course. Upon completion of the first course students will demonstrate the ability to evaluate and choose among alternative system solution strategies. In the second semester, students review and revise their design and start the implementation phase based on software engineering principles.

60. Masoud Naghedolfeizi
Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Published Articles
Title of scholarship: Illumination and Rotation Invariant Texture
Date(s): July 2013
Place: IPCV'13 - The 2013 International Conference Proceedings on Image Processing, Computer Vision, and Pattern Recognition, Las Vegas Nevada

Abstract: In this paper, we propose a new feature for texture representation that is based on pixel patterns and is independent of the variance of illumination and rotation. A gray scale image is transformed into a pattern map in which edges and lines used to characterize the texture information are classified by pattern matching. The Gabor filters can enhance edge features, however, are not effective in edge pattern classification. We extract the pattern templates from image patches by Principal Component Analysis (PCA). Based on the pattern maps, the feature vector is comprised of a sorted histogram. The calculation of the features is simple and computationally efficient compared with other illumination and rotation invariant texture schemes.

61. Iheanyichukwu Osondu
Department: History
Status: Faculty
Type of Scholarship: Published article
Title of Scholarship: The Third World: What is in a Name?
Date(s): 2011

Abstract: The origin of the term “third world” has been variously debated, however the authorship remains that of Alfred Sauvy, a French economic historian and demographer who used it to refer to the “third force” mostly the independent French left. However, his meaning and use of this word has changed over time especially after the none aligned movement conference held in Bandung(Indonesia) in 1955. This conference was attended by representatives of newly decolonized countries as a way of identifying and stating their desire to pursue neutral and unaligned foreign policy vis avis the capitalist economy of western Europe and the countries with centrally planned economies of Eastern Europe and the Soviet Union…. Development bears one ideological characteristics of suggesting that there is only one
correct answer to all societies’ problems from poverty, illiteracy, to violence and despotic rulers. It is however important to note that economics and economic theories are social constructs and that the process of making a livelihood is culturally modeled.

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Aficans and other people of African descent in diaspora, especially in North America have adopted the rotatory credit association as a means of extending credit and socialization among themselves. These organizations are similar in method and practice to those existing on the African continent. Participants are able to reduce their dependence on credit cards as well as navigate through difficult financial situations.

64. Iheanyichukwu Osondu

Department: History
Status: Faculty
Type of Scholarship: Book Chapter
Title of Scholarship: An outline Geography of Africa
Date(s): 2011

Abstract:
The geography of Africa is not as complex as that of other continents such as Asia or Europe. However, Africa is so diverse that even educated outsiders are so often confused or lose sight of this complex diversity when discussing Africa. Some even use Africa in a singular term as if it is a country not a continent. Hence to many outsiders, Africa is the most poorly understood of all the world’s regions.

65. Teresa Shakespeare

Department: Biology
Status: Faculty
Type of Scholarship: Peer-Reviewed Published Journal Article
Title of Scholarship: Visualizing the effect of dynamin inhibition on annular gap vesicle formation and fission
Date(s): Jun 15 2013

Abstract:
Although gap junction plaque assembly has been extensively studied, mechanisms involved in plaque disassembly are not well understood. Disassembly involves an internalization process in which annular gap junction vesicles are formed. These vesicles undergo fission, but the molecular machinery needed for these fissions has not been described. The mechanoenzyme dynamin has been previously demonstrated to play a role in gap junction plaque internalization. To investigate the role of dynamin in annular gap junction vesicle fission, immunocytochemical, time-lapse and transmission electron microscopy were used to analyze SW-13 adrenocortical cells in culture. Dynamin was demonstrated to colocalize with gap junction plaques and vesicles. Dynamin inhibition, by siRNA knockdown or treatment with the dynamin GTPase inhibitor dynasore, increased the number and size of gap junction 'buds' suspended from the gap junction plaques. Buds, in control populations, were frequently released to form annular gap junction vesicles. In
dynamin-inhibited populations, the buds were larger and infrequently released and thus fewer annular gap junction vesicles were formed. In addition, the number of annular gap junction vesicle fissions per hour was reduced in the dynamin-inhibited populations. We believe this to be the first report addressing the details of annular gap junction vesicle fissions and demonstrating a role of dynamin in this process. This information is crucial for elucidating the relationship between gap junctions, membrane regulation and cell behavior.

66. Washella T. Simmons
Department: English and Foreign Languages
Status: Faculty
Type of scholarship: Published Book Chapter
Title of scholarship: *Industrial War: Attaway, Himes, and African Americans in Industry during the World Wars*
Date(s): June 1, 2013
Place: Black Writers and the Left. 

Abstract: In the article, “Industrial War: Attaway, Himes, and African Americans in Industry during the World Wars,” all of the main characters in William Attaway’s *Blood on the Forge* (1941) and Chester Himes’ *If He Hollers Let Him Go* (1945) and *Lonely Crusade* (1947) face challenges in which they must make crucial and sometimes split-second decisions while working in industrial occupations. These men encounter hostile working conditions, not only with the actual work they undertake, but also with the attitudes of their white coworkers. Racial attitudes depicted in the novels stem from the way blacks and whites limit themselves based on the psychological aftereffects of slavery, which is viewed through Frantz Fanon’s *Black Skin, White Masks* and Albert Memmi’s *The Colonizer and the Colonized*. In an attempt to describe the sociopsychological effects of integrating blacks into positions formerly held by whites, the essay examines how the various novels present the dynamics of professional politics between blacks, whites, and/or white immigrants in the workplace. There is also an examination of white liberals and their contradictory position of being part of the white majority and also sympathizers of the black cause.

67. Dr. Cheryl Swanier
Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Published Article
Title of scholarship: *Creating New Mathematical Applications Utilizing Smart Table*
Date(s): March-May 2011
Place: Journal of Educational Technology Vol. 6, No.4, pp. 1-6.
Abstract: SMART Technologies is leading the way for interactive learning, through their many different tools. The SMART Table is a multi-user, multi-touch interactive interface that not only teaches children different concepts in fun ways (Steurer P., 2003 ), but it also inspires cooperative competition. In Alabama, the state
curriculum for kindergarten through second grade in mathematics education instructs students in the rudimentary manipulation of the base numbers zero through ten (Education, 2003). Teachers will greatly benefit from a fun mathematical interactive educational system that involves base numbers. During this project, we implemented an educational tool utilizing the SMART Table SDK and Visual Studios 2008 to teach K-2 inequalities and the number line through educational software.

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**68. Patcharin Tragoonsirisak**

**Department:** Mathematics and Computer Science  
**Status:** Faculty  
**Type of scholarship:** Co-authored peer-reviewed article  
**Title of scholarship:** A Quenching Problem Due to a Concentrated Nonlinear Source in an Infinite Strip  
**Date(s):** Year 2011  
**Place:** Dynamic Systems and Applications 20, (2011), 505-518.  
**Abstract:** This article studies a semi-linear parabolic initial-boundary value problem with a concentrated nonlinear source in an infinite strip in the N-dimensional Euclidean space. Existence, uniqueness, and locations where quenching occurs for the solution are investigated.

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**69. Patcharin Tragoonsirisak**

**Department:** Mathematics and Computer Science  
**Status:** Faculty  
**Type of scholarship:** Co-authored peer-reviewed article  
**Title of scholarship:** Quenching Criteria for a Parabolic Problem Due to a Concentrated Non-Linear Source in an Infinite Strip  
**Date(s):** 2013  
**Place:** Quarterly of Applied Mathematics, 71 (2013), 541-548.  
**Abstract:** This article studies a semi-linear parabolic first initial-boundary value problem with a concentrated nonlinear source in an N-dimensional infinite strip. Criteria for the solution to quench are given.

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**70. Patcharin Tragoonsirisak**

**Department:** Mathematics and Computer Science  
**Status:** Faculty  
**Type of scholarship:** Co-authored peer-reviewed article  
**Title of scholarship:** Effects of Concentrated Nonlinear Sources on Blow-up and Quenching Phenomena in $\mathbb{R}^N$  
**Date(s):** Year 2012  
**Place:** Proceedings of Dynamic Systems and Applications 6, (2012), 91–96.  
**Abstract:** Blow-up and quenching models are closely related. As an illustration, an explosion described by a blowup model occurs at an infinitely high temperature, while when described by a quenching model, it happens at a finite temperature. For the one-dimensional problems, effects of concentrated nonlinear sources on existence, uniqueness, and behavior of solutions are investigated. A correct
formulation of such problems in multi-dimensions is given. For the multi-dimensional problems, effects of concentrated nonlinear sources on the solutions are also investigated.

71. Patcharin Tragoonsirisak

**Department:** Mathematics and Computer Science  
**Status:** Faculty  
**Type of scholarship:** Co-authored peer-reviewed article  
**Title of scholarship:** *A Multi-Dimensional Blow-Up Problem Due to a Concentrated Non-Linear Source in R^N*  
**Date(s):** Year 2011  
**Place:** Quarterly of Applied Mathematics 69 (2011), 317-330.  
**Abstract:** This article studies a multi-dimensional semi-linear parabolic problem with a concentrated nonlinear source. It is shown that the problem has a unique nonnegative continuous solution u before blowup occurs. It is also proved that if u blows up in a finite time, then it blows up everywhere on the concentrated source only. The effects of the spatial dimensions on blowup are also studied.

72. Barbara Wyche (With Murty, K. et al.)

**Department:** Behavioral Sciences  
**Status:** Faculty  
**Type of scholarship:** Published article  
**Title of scholarship:** *Congressional Progressive Caucus Agenda: Challenges and Opportunities for 2012 Elections*  
**Date(s):** February 2012  
**Place:** Race, Gender & Class 20, no. 1-2 (2013): 56-77  
**Abstract:** This paper discussed selective hot-topic areas of the Congressional Progressive Caucus (CPC) as the election of 2012 drew near. It explores the many areas that Americans are concerned about today, including immigration, house foreclosures, the national infrastructure bank and the education system. The paper delved into the many opportunities for President Obama to tap into in order to prove himself as the best presidential candidate. Political factions aside, the progressive vote is the vote of the future, so long as the candidates uphold the ideals and stay true to the caucus' intentions. Lessons from history are suggested as possible aids to President Obama and the CPC: 1759,1776- Adam Smith's "very violent attack" on England's commercial system; the 1790s , the Founding Fathers' Struggles over America's First National Bank; the 1870s -80s, the Biracial Readjuster Party's Victory Over the Debt Payers and a "new deal" and "honest" shuffle for Virginians.

73. Nabil A. Yousif

**Department:** Mathematics and Computer Science  
**Status:** Faculty  
**Type of scholarship:** Published Article/Co-author  
**Title of scholarship:** *Engaging Computer Science Students in Electro-Mechanical*  
**Date(s):** June 2011
This paper describes two engineering projects that were implemented in a capstone computer science course. The projects were designed to engage students in cross-disciplinary activities and to enhance their career opportunities in the job market. The first project was concerned with the design of a data acquisition software system and the second project involved a standard data acquisition system for condition monitoring of computing equipment. The students who worked on these projects were involved in hands-on activities and gained knowledge and skills that were cross-disciplinary in nature.

74. Nabil A. Yousif
Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Published article/ First Author
Title of scholarship: Developing a Pre-Assessment Instrument to Measure Readiness of Students in a Data Structures Course
Date(s): Nov. 2011
Place: Mid-Southeast Chapter of the ACM Conference Proceedings, Gatlinburg, Tennessee

Abstract: Data structures course is a junior level computer science and is regularly offered during fall semesters at Fort Valley State University. To identify the preparedness level of students in the course, we have designed a pre-assessment instrument to help measure the readiness level of students in major topics of programming; data types, selection, looping, arrays, and object-oriented programming. Ten programs were designed for these topics. Logical, syntax, and run-time errors were intentionally placed into the programs. Students were asked to debug and correct the programs. There were two main reasons for choosing this method. In debugging process, students often have to carefully examine every line of program for various possible errors. Thus, it forces students to review and study the programming concepts for the problem on hand systematically. Secondly, it teaches them the importance of programming documentation and its role in programming life cycle.

After collecting the pre-assessment results, the performance of each student was evaluated. The passing score on scale of 100 was set at 85 and approximately 75% of students were able to pass the assessment. The results obtained from the assessment indicated that nearly 60% of students had problems with object-oriented programming concepts.

75. Xiangyan Zeng
Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Published article
Title of scholarship: Illumination and Rotation Invariant Texture Segmentation
In this paper, we propose a new feature for texture representation that is based on pixel patterns and is independent of the variance of illumination and rotation. A gray scale image is transformed into a pattern map in which edges and lines used to characterize the texture information are classified by pattern matching. The Gabor filters can enhance edge features, however, are not effective in edge pattern classification. We extract the pattern templates from image patches by Principal Component Analysis (PCA). Based on the pattern maps, the feature vector is comprised of a sorted histogram. The calculation of the features is simple and computationally efficient compared with other illumination and rotation invariant texture schemes.

76. Xiangyan Zeng
Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Book chapter
Title of scholarship: Image Processing of 2D Crystal Images
Date(s): 2013
Place: http://www.ncbi.nlm.nih.gov/pubmed/23132061
Abstract: Electron crystallography of membrane proteins uses cryo-transmission electron microscopy to image frozen-hydrated 2D crystals. The processing of recorded images exploits the periodic arrangement of the structures in the images to extract the amplitudes and phases of diffraction spots in Fourier space. However, image imperfections require a crystal unbending procedure to be applied to the image before evaluation in Fourier space. We here describe the process of 2D crystal image unbending, using the 2dx software system.

77. Xiangyan Zeng
Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Published article
Title of scholarship: Automation of Image Processing in Electron Crystallography
Date(s): 2013
Place: http://www.ncbi.nlm.nih.gov/pubmed/23132069
Abstract: Electron crystallography of membrane proteins records images and diffraction patterns of frozen-hydrated two-dimensional (2D) crystals. To reconstruct the high-resolution three-dimensional (3D) structure of a membrane protein, a multitude of images of 2D crystals have to be processed. Certain processing steps are thereby similar for batches of images that were recorded under similar conditions. Here we describe how the 2dx software package can be used to automate the processing of 2D crystal images, and how the 2D and 3D merging results can be used to iteratively reprocess the images. While the processing of 2D crystal images has been fully automated, the merging process is still semi-manual.
78. Xiangyan Zeng

Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Published articles
Title of scholarship: 3D reconstruction of 2D Crystals
Date(s): March, 2011
Place: http://dl.acm.org/citation.cfm?id=2016084
Abstract: High Resolution three-dimensional (3D) reconstruction of several proteins has been achieved from two-dimensional (2D) crystals by electron crystallography structure determination. However, for badly ordered 2D crystals, especially non-flat crystals, Fourier-filtering based methods fail, while single particle processing approaches can produce reconstructions of superior resolution by aligning particles in 3D space. We have investigated a single particle processing approach combined with the crystallographic method to generate images centered on the unit cells of 2D crystal images. The implemented software uses the predictive lattice node tracking in 2dx/MRC software to extract particles from the microscope images. These particles are then subjected to a local contrast transfer function (CTF) correction. The tilt geometry obtained in the 2dx software is used to initialize the Euler angles, which along with translations are then refined by a single particle processing approach. Finally, iterative transform algorithms, namely the error reduction algorithm and the hybrid input-output algorithm, are applied to retrieve missing information in the previously obtained 3D reconstruction. Compared with conventional single particle processing for randomly oriented particles, the required computational costs are greatly reduced as the 2D crystals restrict the parameter search space. Preliminary results from a 3D reconstruction of the membrane protein GlpF suggest that the iterative transform process improves 3D resolution.

79. Xiangyan Zeng

Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Published articles
Title of scholarship: Iterative Transform Algorithms for 3D reconstruction of 2D Crystals
Date(s): February, 2012
Place: http://connection.ebscohost.com/c/articles/76342303/iterative-transform-algorithms-3d-reconstruction-2d-crystals
Abstract: In this paper, we apply iterative transform algorithms, namely the error reduction algorithm and the hybrid input-output algorithm, to retrieve missing data in 3D reconstruction from 2D crystal images. 3D protein structures are determined using cryo-electron microscopy (cryo-EM). Extremely strong noise in cryo-EM brings in unreliable artifacts and a limited number of projections leave missing components in 3D Fourier space. We consider all these cases as missing data problems. The iterative transform algorithms aim at improving 3D resolution through applying constraints in Fourier space and real space. In Fourier space, the "true" signal components, which are either physically measured or assumed, are retained while the delusive components are
updated iteratively. In real space, the protein has spatial limitation or "finite support" and possesses non-negativity values. Preliminary results of 3D reconstruction of membrane protein GlpF suggest that the iterative transform process improves 3D resolution.

80. Xiangyan Zeng
Department: Mathematics and Computer Science
Status: Faculty
Type of scholarship: Computer Software
Title of scholarship: 2dx
Date(s): 2011-2013
Abstract: A software system designed as a user friendly, platform-independent software package for electron crystallography. 2dx assists in the management of an image-processing project, guides the user through the processing of 2D crystal images, and provides transparency for processing tasks and results. It is used by major research groups of electron crystallography all over the world.

81. Jianmin Zhu
Department: Department of Mathematics and Computer Science
Status: Faculty
Type of scholarship: Published article
Title of scholarship: *Blow-up Results for Hyperbolic and Parabolic Initial Boundary Value Problems with Formally Self-Adjoint Differential Operators*
Date(s): 2012
Abstract: In this paper, the author studies hyperbolic and parabolic initial-boundary value problems. Criteria for solutions of hyperbolic and parabolic initial-boundary value problems with formally self-adjoint differential operators to blow up in finite time are obtained.
CREATIVE WORKS OF ART
By Professor Ricky Calloway

**Courageous Black Women: The Forgotten Backbones of the Reconstruction Period 1860-1880**, oil on Masonite Board, 56” x 24” x 6”, 2013

**Mis-Education Leads to Self-Destruction**, graphite and pen and ink on paper, 50” x 20”, 2011

**Forcing Ignorance from Our Minds for Truth**, oil on canvas, 28” x 62”, 2011

**Irene Morgan and Freedom Riders**, oil on canvas, 48” x 72”, 2011

**Mural of an Antique Train: Fort Valley Farmers Market**, acrylic on plywood, 2012

**Book Illustrations Rebels and Runaways: Slave Resistance in 19th-Century Florida** by Larry Eugene Rivers
Underground Railroad in Florida
Escaping to Freedom from Slave Catchers

Underground Railroad in Florida
Sailor Hiding Runaway Slave on Ship

Underground Railroad in Florida
Servant Rebuking Owner’s Wife
Dr. Young Park has recently received several achievement awards; including the Distinguished Alumni Award from Korean University, Seoul, Korea (2012), Kraft Foods Teaching Award in Dairy Manufacturing from the American Dairy Science Association (ADSA)(2012), Land O’Lakes Inc. Award from the ADSA (2009), Morrison-Evans Outstanding Scientist Award, a recognition given to a scientist with the highest scholarly achievements within the 1890 land-grant university system (2009), and John W. Blasingame Outstanding Scholar Award during the 2007 Fall Semester Commencement Ceremony at FVSU. He has been awarded to the inaugural Certified Food Scientist by the IFT (Institute of Food Technologists) in 2013. These awards directly indicate that Dr. Park’s accomplishments in “knowledge” (teaching, research and outreach activities) are exemplary and noteworthy.

In addition, Dr. Park has been nominated for the 2000 outstanding scientists of the 21st century award by the International Biographic Centre, Cambridge, England for the third time (nominated in 2000, 2001 and 2003), which also shows his excellence in research, academic and scientific activities in higher education. Dr. Park has published six books in the recent years, entitled Handbook of Milk of Non-Bovine Mammals (2006, First Editor), Goat Milk and Sheep Milk (2007, Co-Editor), and Bioactive Components in Milk and Dairy Products (2009, Single Editor), and his first book “Handbook of Milk of Non-Bovine Mammals” has been translated to Spanish and Chinese versions, which shows the global importance of his work in agriculture and food production. His 6th book published in 2013, entitled, “Milk and Dairy Products in Human Nutrition” has also worldwide attention in scientific communities.
Dr. Park has advised and successfully graduated many graduate students at FVSU, the University of Georgia and Prairie View A&M University (Texas A&M System). Dr. Park has been regarded as one of the best educators and scientists on our campus. He takes great pleasure in working with graduate students in the laboratories and training them to make scientific presentations in national society meetings. His graduate students have presented several research papers in professional meetings such as MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences) and ARD (Agricultural Research Directors’) Biennial Symposium, and on many occasions have won awards for outstanding presentations. Dr. Park was also appointed as an adjunct faculty member in the Department of Food Science and Technology at The University of Georgia (UGA) in 2001 and has been serving as major advisor for graduate students since then. Ms. Catherine Maduko, one of his recent graduate students at UGA, received her Ph. D. degree in 2007, and published four outstanding papers from her dissertation research in prestigious journals under Dr. Park’s guidance. Dr. Park has been appointed to an Adjunct Professor in Mongolia International University (2012), and Mongolia Huree University (2013), both are in Ulaanbaatar (the capital city), Mongolia.

During his long professional career, Dr. Park has taught several courses related to dairy products and food chemistry. He emphasizes the use of technology in class rooms, and always makes it a requirement for students to make presentations in his courses. Dr. Park motivates his students to do better in his classes, but never compromises on the quality standards he has established. He has a keen interest in student advisement, and has mentored a number of students over the years.

Dr. Park and I joined FVSU Animal Science Faculty over 16 years ago. Since then, I have been observing his professional accomplishments, and at times amazed by his self-motivation and ability to accomplish things despite encountering hurdles. Dr. Park had been extremely successful in securing external grants for his research. He has published over 300 publications, including 6 books, 32 book chapters, 71 refereed journal papers, 172 abstracts, and symposia papers. It is for this reason that Dr. Park has earned an international reputation as an expert and educator in goat dairy research and technology. Periodically, he gets invited to professional meetings throughout the world to give presentations in his field. He has delivered invited talks in Finland, France, Brazil, South Africa, Spain, Mexico, Italy, India, Australia, Korea, Argentina, China, Germany and US. Most recently, he has been invited to Argentina to special lectures in Cordova and Buenos Aires in 2008.

Dr. Park not only maintains active memberships in several professional societies, but also effectively contributes by serving on committees and holding offices. For example, he has served as the National Chair for the Dairy Foods Division of the ADSA (2012), Vice Chair (2011), and National Secretary (2010) of the ADSA (Dairy Foods). He also served as a session chair of several sessions as well as a symposium speaker at the joint annual conferences of ADSA/ASAS/CASA in Phoenix, AZ (2003 and 2012), Baltimore, MD (2000) and New Orleans, LA (2011).
Dr. Komanduri S. Murty, Professor and Coordinator of Sociology Program at Fort Valley State University, is the author or co-author of five books and more than 70 book chapters and articles. His research contributions appeared in numerous books and journals, including the *Crime and Criminal Justice in Disaster; Opportunities and Challenges for Applied Demography in Public Health in 21st Century; Applied Demography and Public Health; Race and Racism in the United States: An Encyclopedia of the American Mosaic; Black America: A State-by-State Encyclopedia; Encyclopedia of American Prisons, Encyclopedia of Anthropology, Encyclopedia of Great Black Migration; Intimate Violence; Journal of Race, Gender and Class; Criminal Justice Review; The Status of Black Atlanta; Studies in Symbolic Interactionism; Deviant Behavior; International Journal of Comparative and Applied Criminal Justice, Journal of Police Science Administration; Journal of Social and Behavioral Sciences; and Victimology, etc.;* and, presented more than 90 articles at professional meetings—nationally and internationally. His research works were widely cited by scholars around the nation. He has written more than 25 research monographs and reports for various agencies. He received and administered grants totaling more than 5 million dollars; and, reviewed proposals by serving on panels of both national and state agencies.

In addition, Dr. Murty served as discussant, panel member, or chair on various panels at professional conferences; reviewed book manuscripts for Sage Publications and University of Alabama Press, and articles for publication in such journals as *Journal of Race, Gender and Class, Phylon Quarterly, Journal of Crime and Delinquency, Journal of Crime and Justice, Sociological Spectrum, Justice Quarterly,* and *Sociological Quarterly*. He also served as Associate Editor of *International Journal of Comparative and Applied Criminal Justice* (1989 to present), editorial board of *Blacks in Criminal Justice Quarterly* (1987-1988), manuscript review board of *Journal of Crime and Justice*, manuscript review board of *Sociological Quarterly*.

Dr. Murty served as professor and chairman of criminal justice and sociology for 25 years at Clark Atlanta University, where he received the 2005 Aldridge McMillan award for Outstanding Overall Achievement. He was the Visiting Fellow of the United Negro College Fund Special Programs (UNCFSP) in 2005; and the University Grants Commission (UGC) Visiting Professor of Criminal Justice at Andhra University, India, in 1996, where he earned his M.A. in Sociology in 1977. He also holds a two-year Diploma in Population Studies from the International Institute for Population Studies (sponsored by the United Nations) in 1979; and Ph.D. in Sociology (with a minor in Economics) from Mississippi State University in 1984. Finally, he is listed in Lexington Who’s Who: America’s Registry of Outstanding Professionals, Who’s Who Among American Teachers, Who’s Who Historical Society, 2000 Outstanding Scholars of the 21st Century, and Who’s Who in the South and Southwest.
Dr. Franklin Gross is an Assistant Professor of music in the department of Fine Arts at FVSU. He has been teaching in higher education for seven years. He has an extensive performance history in Austin, where he played the piano music of Pulitzer Prize Winners such as Jennifer Higdon, John Corigliano and John Adams at U.T. – with those composers in attendance. Upon arriving at Fort Valley State University in 2009, Dr. Gross embraced the message of ‘Communiversity’ as well as the mission statement instated by Fine Arts Department Head, Bobby Dickey: “We are a Service Department.” After accompanying the choir nationally during his first year as faculty, Gross branched out and began to curate and co-curate events like “Sir Charles Atkins and the Sounds of Seven Blues Giants,” “Musical Theatre at the Austin Theatre,” “FVSU Night,” “Jam Night,” “Pre-Exam Jam,” etc. Dr. Gross’s efforts to join local organizations and boards led to the FVSU Concert Choir being featured on the Warner Robins Community Concert Association Series. On the upcoming date of Sunday, September 29th at 4p.m., Dr. Gross has arranged to perform with Professor Leonard Giles and Dana Jefferson (recent Fine Arts graduate) at the ‘Music and the Arts at Vineville Methodist’ Concert Series in Macon – Free event, and All Are Welcome!

Dr. Gross sticks to a personal motto: Be a ‘Yes Person.’ Who knows what wonderful opportunities we miss out on otherwise? By engaging music majors and minors beyond the curriculum, and also curating special events to peak the interest of Music Appreciation students and the community, Dr. Gross has provided memorable support to FVSU in the form of concerts, scholarly presentations, community service, field trips and committee engagements. Gross credits the FVSU family–especially the Fine Arts department, devoted faculty and staff, and the ongoing efforts of St. Luke’s Church–for giving him inspiration and opportunities to ‘Get Involved.’ Nobody has extra time, but he has seen others Make extra time, as we All can do if we try! Gross thanks the Fort Valley
State University students for inspiring him every day, and aiding absolutely every Fine Arts and ‘Communiversity Effort.’

**Dr. Andrew Ann Dinkins Lee** is the newly appointed founding Associate Director for Undergraduate Research, the University’s 2009-2010 John W. Davison Outstanding Teacher and Educator and a full Professor of Speech and Mass Communication in the Department of Fine Arts, Humanities and Mass Communications. Dr. Lee received both the M.A. and Ph.D. in Rhetoric and Communication from the University of Pittsburgh and the B. S. in Special Education from Jackson State University.

Dr. Lee has been recognized for her commitment to service in higher education. As a member of the National Communication Association, she served a three (3) year term (2001, 2002, and 2003) on the Legislative Assembly, the policy-making body in the organization; she served as a National Communication Association (NCA) Delegate: 2007, 2008, 2009 at the National Humanities Alliance Day Conference for NEH Funding, Washington, D.C.; and she was appointed as Chair of the HBCU Initiative for the NCA-conducted study designed to determine the status of communication at HBCUs, HSIs and Tribal colleges with respect to such issues as enrollment trends, post baccalaureate career paths, faculty professional preparation and interests, and institutional support. She was awarded the Presidential Citation for “outstanding service to NCA and the communication discipline.”


Dr. Lee says: “If one’s life is to have real meaning and purpose, then it must be inextricably linked to the ultimate goal of improving the human condition, which, for me, translates into a genuine commitment to make a real difference in the lives of others.” During the 2012/2013 academic year, when the University was engaged in a series of tough conversations, Dr. Lee, in her capacity as Parliamentarian of the Faculty Senate, made a difference when she used that platform to make a positive impact on her colleagues as she encouraged them to maintain and sustain a collective spirit of collegiality, public decorum and civility in conducting the business affairs of the Faculty.

**Professor Gholamreza Keihany-Yazdy** has been teaching for more than thirty years (twenty years at FVSU). As a math professor, he enjoys conducting SAT & GRE workshops to assist students with improving their performance on these standardized
exams. He taught SRAP students for the past ten years and is adapting to the use of distance learning for teaching some of these courses. He tutors students at FVSU in the evenings to provide additional instructional support, and participates in public school volunteer tutorial activities, while maintaining his regular mathematics teaching course load, which includes classes from freshman to senior levels. He has exemplary ratings on his student evaluations, which reflects his experience as a seasoned instructor of mathematics, who is well aware of the challenges students face in studying mathematics.

He believes that a successful teacher must first have an excellent relationship with students s/he is teaching, and must be thought of as a fair, highly motivated, enthusiastic, fully engaged, organized and an effective teacher, who is deeply concerned about students’ success.

Professor Keihany challenges his students to think critically and to make right academic as well as life decisions. While maintaining high academic standards, he believes educators must also work with students in ways which show compassion, in order to make sure that none of them is left behind. A personal commitment to teaching and learning, both inside and outside the classroom, have always been top priorities in his teaching philosophy, and the use of technology is helping to fuel this commitment as he looks today the future.
Fort Valley State University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate and master’s degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Fort Valley State University.

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