## THE BIOMED SCIENTIST



Newsletter of The Association of African Biomedical Scientists, Inc.

Web Address: http://www.aabs-inc.org

Volume 3 June 2007

The Association of African Biomedical Scientists, Inc. (AABS) is a not-for-profit organization. The main goals of AABS are to:

- 1. Foster the development of Science in Africa
- 2. Network, share ideas, and information among members
- Promote career development opportunities for Biomedical Scientists in North America
- 4. Provide opportunities for young developing scientists;
- 5. Encourage research collaboration in pursuit of advancing scientific knowledge.

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## **EDITOR'S CORNER**

It is my honor to introduce to you the third edition of The BioMed Scientist, the official Newsletter of the AABS Inc. I hope you will enjoy this issue which features articles of interest by Dr. Mohammed Salem, message from the president, brief conference reports and policy formulation on fostering scientific cooperation between African Union members, Light Comedy and Trivia Corner. Members are encouraged to submit articles for publication in the future issues of the Newsletter. The Board of Trustees of AABS is considering the launching of a Journal, and your cooperation is being solicited to first make this Newsletter a resounding success. Members, especially those in Africa are encouraged to send in articles, including conference repots, and announcements, for publication. It is my fervent believe that you will enjoy this issue and will make an effort to help us improve the content of the next issue, with diverse articles that will appeal to our wider readerships. Please send your articles and comments to the Editor at Yakubu ma@tsu.edu. Let us use this forum to network and to establish relationships that will enable us help one another succeed in our professional endeavors.

#### Editor: Momoh Yakubu, PhD.

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## MESSAGE FROM THE PRESIDENT

Vincent K. Tsiagbe, PhD.

Fellow members of AABS: As we progress into the third volume of The Biomed Scientist, it is again my great pleasure to shed some light on the state of our "budding" Association.

Two years ago, we met at the San Diego Marriott Hotel to celebrate another milestone in the growth of our Association. It was a well attended meeting at which much brain-storming occurred. As a result of the fragmentation of the usual yearly FASEB meetings, a full FASEB gathering will not take place until Experimental Biology 2008 in San Diego, California. It became imperative that AABS should hold satellite meetings at any of the FASEB Society meetings at which enough AABS members could hold a meeting. In the spirit of this new reality, AABS held a satellite meeting at the Experimental Biology 2007, in Washington DC. This was a rather impressive meeting which began on a very strong note – precisely on time! The attendance was excellent and the deliberations were productive. The salient items discussed included: 1) rejuvenation of interest in our newsletter and possible scientific journal, 2) membership drive to attract more domestic and foreign membership into AABS (with particular emphasis on the African Continent), and 3) making efforts to hold international meetings on the African Continent.

As the adage goes - "without knowing where you originate, you will never know which direction to go". Therefore, for the information of our new members, and at the risk of boring seasoned AABS members, I will give you a brief history of AABS. This would serve as a reminder of how far we have come, and provide some comfort that even though progress might seem small in some eyes, we are in matter of fact "moving forward":

In 1998, a group of seven African Scientists met on one of the stairs of San Francisco Convention Center, and made a firm commitment to work towards formation of an association that would hold the interest of African biomedical scientists at heart, while fostering the development of biomedical science generally. From this humble beginning, the Bylaws and articles of incorporation were passed in 1999, in Washington, DC at Experimental Biology 1999. The American Association of Immunologists assisted us with a meeting room, and has continued to sponsor our meeting rooms. We are forever grateful to AAI. We are most grateful to FASEB-MARC program for providing a meeting place for the AABS meeting this year.

The goals set for AABS are laudable, but difficult ones requiring moral, psychological and financial muscle to accomplish. Our incorporation was facilitated by *pro-bono* legal council provided to AABS by Deborah Tsiagbe. Through her efforts, our early growth was spurred by a generous contribution by the Vinmont Foundation of New York. Deborah Tsiagbe continues to provide pro-bono council to AABS. With her assistance, we obtained final not-for-profit 501©3 status from the IRS, in June 2005. We are appreciative of her generous and continued support. This success has made it possible to solicit for tax-deductible donations to help our course. We can now afford receptions and scientific presentations at our meetings. In this respect, I would also like to

acknowledge our very own Executive Secretary, Dr. Adebayo Oyekan who solicited for donations from various organizations and individuals, totaling \$8,850.

Breakdown of the donations that deserve particular mention are: Vinmont Foundation \$5,000

Texas Southern University:	
Thurgood Marshall School of Law	\$1,000
Center for Cardiovascular Diseases	\$3,500
College of Pharmacy and Health Sci.	\$1,000
Internal Medicine Specialties, Inc:	\$1,000
New York Medical College:	\$500
Continued Care, Inc.	\$500
Tosen, Inc.	\$500
Dr. Abiodun O. Adesanya	\$500
Frederick Duffy	\$250
Drs. F.O. & Thomas Ogunji	\$100
Globenet Environmental Group, LLC	\$50

For effective communication with members, we have launched a website, a list-server, and a Newsletter (The BioMed Scientist). Our web site (<a href="http://www.aabs-inc.org">http://www.aabs-inc.org</a>) and list-server were originally hosted by the New York University School of Medicine (NYUSM) and is recently being hosted by University of Medicine and Dentistry of New Jersey (UMDNJ). We are grateful to NYUSM and UMDNJ for hosting us. Our Newsletter, The BioMed Scientist has now produced a third volume with interesting articles, and I urge members to send in their articles of interest for publication.

There has been a slow ebb in our activities, mostly as a result of the fragmentation of FASEB, which did not make it possible for us to meet in 2006, in addition to relocation of the office of the President, from NYU School of Medicine to the University of Medicine and Dentistry of New Jersey. This move involved reformatting and relocation of our web site.

Our dues payments are disappointingly low. We need to recommit ourselves to the goals we set for ourselves. Without the financial muscle, we cannot extend ourselves to others, in pursuit of our goals. Despite the few setbacks, I am encouraged by the fact that we continue to make progress. Our ability to network and provide guidance to our junior members has not been compromised in any way. *This is a plus!* 

Our next general meeting will be at Experimental Biology 2008, in San Diego, CA. I look forward to seeing you all there. On behalf of the Board of Trustees of AABS, I wish you an enjoyable reading. I also encourage you to regularly visit our web site: <a href="http://www.aabs-inc.org">http://www.aabs-inc.org</a>.

To be a part of the communication, you can request to be added to AABS list sever, by sending e-mail to tsiagbyk@umdnj.edu.

Long Live AABS! KEEP UP THE SPIRIT! Vincent K. Tsiagbe President, AABS, Inc Dr. Vincent K. Tsiagbe is an Associate Professor at Department of Oral Biology and Department of Pathology, at University of Medicine and Dentistry of New Jersey. He is a Board Member and Executive President of AABS, Inc.

## MEMBERSHIP DRIVE

AABS members are encouraged to spread the news of AABS to fellow Biomedical Scientists who are not yet registered members and encourage them to visit our web site, <a href="http://www.aabs-inc.org">http://www.aabs-inc.org</a>, in order to apply for their membership.

The membership dues for the current year are:

Faculty / Scientist: US\$50.00 Postdoctoral fellow: US\$30.00 Student: US\$10.00

Donations to our course are always welcome. Remember that

your dues and donations are tax-deductible.

For those who haven't done so, please send your annual dues/donations to the Treasurer at the following address:

Dr. Mohamed A. Bayorh Department of Pharmacology Morehouse Sch. of Medicine 720 Westview Drive, S.W. Atlanta, GA 30310-14595 United States of America

## FEATURED ARTICLES

## Bridging scientific enterprise in developed and less developed nations: Ideas for improving sciences in developing nations

Mohamed Labib Salem, PhD

Science is the signature of nature. Nature exists everywhere from the North to the South Pole. Nature is humble, does not discriminate between developed and developing nations. Scientists need not only see and contemplate nature but also to read and unravel its signature code. We all enjoy the beauty of nature; however, only scientists can read and solve its puzzle, and this boggles the mind. Providing solutions to Science puzzles can be simple and may require simple plans, or can be complicated with many hurdles, requiring sophisticated plans (protocols and designs) and equipment.

Due to the shortage in the facilities they own, scientists in developing countries are constrained with dealing with simple scientific riddles due to the shortage facilities. In stark contrast, scientists in developed nations are enabled to decipher the complicated natural enigma using the sophisticated facilities in their hands. Does it mean that nature contracted only scientists from developed countries to solve its hurdles? The answer of course is no because nature is fair, with open arms to the core for

all scientists. Now, let me raise this naïve question: Is it valid to put scientists in categories as "developed", "less developed", or "developing"? If this categorization of scientists is acceptable, I would say it is strongly correlated with the designation of their countries as developed, less developed, or developing.

Now, is there any chance for scientists from developing nations to be promoted to the rank of "developed" scientists? Can they one day dive into the cells, step on the moon, touch the neutron and spin the waves, as their "developed" partners do? De facto, I would say yes, there has always been a chance, a real chance, namely through migration of scientists from the developing to the developed countries, where they can achieve their (individual) career goals. However, can this brain immigration (not to say drain) create real chances for advancement of scientists in developing countries? Yes it does, but for the scientists themselves not for their nations, simply because they usually dwell in the new land which invariably benefits from their excellence. Whoever decides to return to his/her home institutions, loaded with energy and sharpened brains full of sparkling thoughts acquainted from working in the "developed" institutions, becomes like a willow in a windy atmosphere. Thus, such kind of one-way move increases the yield of well-"developed" scientists in the developed countries on account of the quality of the scientists in the developing countries. This is so because of the lack of concrete scaffolds in their homelands to support the research interests they acquired while working in the developed countries.

I do not deny the fact that there are significant numbers of foundations and organizations in the developed nations providing training and funding possibilities to young researchers from the developing nations. International research collaboration has grown dramatically in recent years: a US National Science Foundation report documented collaborations of US researchers with scientists from 173 other countries from 1995-1997 (1). For instance, SATELLIFE, a non-profit organization based on Watertown, Massachusetts, USA, is the first to provide low-bandwidth e-mail network in Africa where HealthNet partners are fashioning new services adapted to their own local needs (1). Another example is the Rockefeller Foundations, which since its founding in 1913 has tried many strategies to support medical research and researchers in "developing" countries.

The directory of most resources, which allocate funds for international researchers. can be found http://www.fic.nih.gov/news/DirectoryFellowships.html, and http://www.uncg.edu/ipg/visc/grants.htm. Sustainable Sciences Institute (SSI) is another excellent example for caregiver institutes. Among the several programs provided by SSI (http://www.ssilink.org), the main goal is to help channel used/surplus equipment and reagents to research laboratories in third world countries. Several other organizations share the same goal of helping "developing" countries, including Center For Veterinary (http://www.ecrr.org.uk/broc99/ctvm.htm ), German Academic Exchange Service (http://www.daad.org), Human Frontier Science Program (http://www.hfsp.org), International Foundation for Science (http://www.fao.org), The Joint Science and Technology **Funds** 

(http://www.usembassy.egnet.net/usegypt.htm). International Laboratory Molecular Biology of (ttp://www.vetmed.ucdavis.edu), International Relations-UK (http://www.bbsrc.ac.uk), The International Center for Genetic Engineering and Biotechnology (http://www.icgeb.trieste.it), Society for the Promotion of Sciences Japan (http://www.jsps.go.jp/english/index.htm), and others. Although these outstanding mechanisms are efficient and provide ample assistance, the approaches adopted through these resources are bedeviled by several factors. In addition, these approaches do not in fact meet the ambition of researchers in third world countries or fulfill the formidable lack of even basic equipment.

Although several factors detract, or at least in part hamper the generous precious help by developed nations, certain factors are critical. These include the following: 1) most of the funds are allocated to train researchers from developing countries in developed countries without a return home plan for the trainee; 2) subsistence of researches from developing countries in developed countries after they have well trained in "developed" institutions, the one-way promotion strategy; 3) the rapid deterioration of information technology, equipment, infrastructure, and supplies due to the lack of maintenance; 4) most agencies from developed countries giving funds to developing ones have a policy that money will be allocated for specific projects; 5) lack of follow-up strategy for the funded projects or trained personnel; 6) lack of information flow due to a shortage of resources for information technology, which is in most cases absent, 7) lack of serious support or even vision of the policy makers in developing countries, 8) lack of peer-reviewed journals directed by researchers in developing nations, and 9) the intermittent nature of the help provided by institutes in developed nations.

Even though the factors mentioned above are complementary; the one-way promotion pathway is the most important. Having said that, who can help in retracting the one-way promotion pathway and enhancing the two-way promotion pathway for the "developing" and "developed" scientists? The responsibility should be thrust on the shoulders of the academia in the developed and developing countries, on the scientists themselves, and on the governments. However, developing nations inherited heavy legacy of bureaucracy which tends to signal backward pedaling, which per se impedes serious trials. Thereby, I do believe that the main responsibility should be stemmed and wired from the academia and the policy makers in the developed nations. This goal is achievable through different working mechanisms. Of these mechanisms, recruiting "developing" scientists from their nations, training them, and sending them back to their institutions of origin supported with appreciable funds through mutual wellplanned long-term collaboration will lead to generation of welldeveloped scientists capable of dwelling in the homelands. This strategy will assist those researchers to pursue their careers at the same levels in their home countries as they did in the foreign country. An important next step is to ensure an emphasis on research that is most relevant to the urgent needs of developing countries. Such collaboration should involve a reciprocal visiting program whereby junior and seniors researchers from the developed nations work shoulder-to-shoulder with "developing" scientists. This would be an efficient approach to plant seeds of science and information in a poor land and water it by the

financial and intellectual support from developed countries. Eventually, this environment is likely to restrain the migration of "developing" scientists from their countries. Even though this is an attractive idea, its implementation is challenged by the lack of desire of "developed" scientists to move, at least transiently, to research institutes in developing countries. The lack of desire is mostly because these "developed" researchers worry about the attendant losses in career advancement and remuneration by leaving their institutes. This challenge, however, can be solved by offering additional credits to researchers who initiate and/or participate in solid international collaboration with researchers and research institutes in developing countries.

Supporting "developing" scientists through mutual projects contracted with their partners in the "developed" academia will allow these scientists a firm footing to thrive in the laboratories of their counterparts - independent "developed" scientists, who can facilitate directing an independent, fully funded and cutting edge laboratories in developing countries. Practically, this strategy will bridge "developed" and "developing" researchers by creating a pipe with a current of technology. Only when this sweet dream happens, industry will drive its nose to knock on the doors of the scientists in the "developing" nations for pretentious benefits. So, for long-term it is productive investment since "developing" scientists work hard, are full of enthusiasm, and willing to serve nature with less remuneration and fringe benefits.

#### Reference:

1. McLellan F. Information technology can benefit developing countries, 2001. Lancet, 358 (9278):308.

Mohamed Labib Salem, PhD, is an Assistant Professor in the Section of Surgical Oncology, Department of Surgery, Hollings Cancer Center, Medical University of South Carolina, Charleston, SC, 29425, and a faculty member in the Zoology Department, Faculty of Science, Tanta University, Egypt. Tel. 843-792-7576; Fax: 843-792-2556, e-mail: salemm@musc.edu

## REPORTS FROM MEETINGS

## African Union makes a move in fostering progressive scientific agenda.

Summarized by Vincent K. Tsiagbe, Ph.D.

A three-day summit of the 53-member African Union (AU) that ended in Addis Ababa, Ethiopia, on 30 January 2007, generated some "sparks" about the need to invigorate and develop strategies that gear towards changes in scientific policy on the continent of Africa. The meeting was driven by the AU's science team, headed by Nagia Essayed, and the head of her secretariat, Botlhale Tema. Major achievements of the deliberations include- plans for three new funding agencies; an Africa-wide system of intellectual-property protection; and a 20-year strategy for biotechnology.

A full text of the report can be obtained from: http://www.nature.com/news/2007/070205/full/445576a.html

# International Symposium on Inflammation: An Underlying Factor in Several Diseases.

<u>Location</u>: Ibadan, Nigeria <u>Date</u>: September 11-13, 2006.

Conference Reported by Momoh A. Yakubu, Ph.D.

An international organizing committee led by Dr. Mabayoje Oriowo of Kuwait University, Kuwait and supported by a local committee led by Dr. Falade of the University of Ibadan, Ibadan organized an international symposium on inflammation that was held in Ibadan, Nigeria. The Symposium also recognized a prominent Nigerian pharmacologist, researcher and teacher, Professor David T. Okpako who turned 70 years old. Several members of AABS, Inc., were key note speakers at this Symposium. Scientists from different backgrounds and research interest, came from Africa, Europe, North America, and Asia to participate in a three days scientific discussion focused on "Inflammation as the basic underlying factor in several diseases". The symposium, which took place in the premier Nigerian University in the ancient city of Ibadan, attracted people and scientists from far and wide who presented papers relating and detailing the role of inflammation in different disease conditions.

The meeting began on the first day with the arrival and registration of participants, which was followed by several activities such as re-unification of former colleagues from the Department of Pharmacology and Therapeutics, introduction of new friends and guests, and socialization in small groups at the university conference center. The university staff club was a "beehive" of activities and the center of attractions, as the club played host to the conference participants. Many of the participants were entertained, dined and wined by colleagues from Nigeria who served as hosts for the Symposium.

The second day of the conference started with continental breakfast, and the conference was opened by a welcoming address from the Vice Chancellor of the University of Ibadan (Prof Olufemi Adebisi Bamiro). The Organizing Committee chairs (Drs. Oriowo and Falade) welcomed the symposium participants and introduced the chairperson for the first planetary session: Prof. Salako. Dr. Salako, a legend pharmacologist, physician, and an expert in malaria research gave a brief speech about the role of inflammation in diseases as he traced the contributions of different African scientists to the understanding of different disease conditions with particular acknowledgement of the contribution of Professor Okpako to the study of inflammatory.

The first plenary lecture entitled "Eli-Lilly Power in Partnerships: Together We Can Turn Ideas to Reality" was delivered by Dr. Yetunde Taiwo of the Eli Lilly & Co., Indianapolis, USA. In her lecture, she detailed the partnership program of Eli Lilly and encouraged scientists to continue to work hard to bring new ideas and products into the market place. She also spoke on the difficulties involved in bringing new pharmaceutical ideas into marketable products, but never the less encouraged basic scientists to continue to finding viable products that will help

ameliorate the suffering of people afflicted with inflammatory diseases.

The scientific sessions were opened by Dr. Ayotunde Adeagbo of the University of Louisville School of Medicine, USA podium presentation "Endothelium and Vascular Inflammation in Experimental Diabetes Mellitus". In his paper, he reported reduced nitric oxide-dependent relaxation by stretozotocin-induced diabetes with compensatory increase in epoxygenase product mediated relaxation which was followed by significant increases in cyclooxygenase-2 and membrane prostaglandin E synthase protein expression as well as enhanced prostaglandin E2 and nitric oxide levels, which are comparable to the development of arterial inflammation. In a treatment with the antioxidant tempol, Dr. Adeagbo reported a restoration of normal endothelium function in the diabetic rats, suggesting that the diabetes-induced inflammation is due to enhanced oxidative stress.

Dr. Mabayoje Oriowo of the Kuwait University faculty of Medicine, Kuwait presented a paper entitled "Pulmonary Vascular Reactivity in Pulmonary Hypertension" in which he tested the hypothesis that the reduced response of the pulmonary artery to norepinephrine in monocrotaline-induced pulmonary hypertension was due to a reduction in Rho-kinase mediated sensitization of the myofilaments to calcium. Dr. Oriowo presented data that affirmed that while Rho-kinase activity was elevated in experimental pulmonary hypertension, there was poor coupling of receptor activation to the Rho-kinase

Dr. Adebayo Oyekan of the Center for Cardiovascular Diseases of the Texas Southern University, USA, presented a paper entitled "Interactions of Nitric and Cytochrome P450-derived Eicosanoids on the Cardiovascular System" and concluded that nitric oxide interacts with 20-hydroxyeicosatetraenoic acid (HETE) and 20-HETE, subserves a second messenger role for endothelin-1 in the kidney in physiological pathophysiological setting. Thus, interaction of nitric oxide, endothelin-1, and 20-HETE are important for understanding the pathophysiology of hypertension and renal failure. Such understanding is important for designing better modalities for treatment of cardiovascular diseases.

Dr. Richard Somiari, the President and Chief scientific officer of ITSI-Biosciences, Johnstown, USA, presented a paper on "The Role of Proteomics in Inflammation Research". He detailed the emerging role of proteomics in disease identification, biomarking, progression, and proteomic targets for therapeutic development. The presentation further described the state-of-the-art applications of proteomics in complex disease research to identify proteins involved in inflammatory response.

Dr. Momoh Yakubu of the Texas Southern University, Center for Cardiovascular Diseases, USA, presented his work on "Cerebrovascular Dysfunction: Roles of Endothelin and Inflammation". He profiled the roles of endothelin-1 and inflammation in cerebral vasospasm resulting from strokes and traumatic brain injuries. Dr. Yakubu proposed that the ligands for peroxisome proliferator-activated receptors may be promising therapeutic agents based on data presented which showed that

cerebrovascular function can be improved through reduction of endothelin-1 production, increased endothelial nitric oxide synthase-derived nitric oxide and modulation of inflammatory mediators, making them a potential target for treatment of cerebral dysfunction.

Dr. Sunny Ohia of the University of Houston College of Pharmacy, USA, presented his work on the role of "Oxidative Stress in Uveitis and other Ocular Diseases". He reviewed the role of oxidative stress induced by hydrogen peroxide in ocular diseases such as uveitis, glaucoma and various forms of retinopathy. Furthermore, he presented evidence of the pharmacological effect of hydrogen peroxide on neurotransmitter release from ocular tissues. Dr. Ohia concluded that in ocular tissues, oxidative stress acts specifically to alter the release of norepinephrine and glutamate, key neurotransmitters involved in the pathogenesis of uveitis and various forms of retinopathy.

Dr. Catherine Opere from Creighton University School of Pharmacy and Health Professions, Omaha, USA presented her work on "The Ocular effects of Isoprostanes" and concluded that isoprostanes, free-radical catalyzed products of arachidonic acid pathway can alter the release of both sympathetic and excitatory neurotransmitters in the anterior uvea and posterior segments of mammalian eyes through activation of thromboxane-like and non-thromboxane-like receptors.

Dr. Benedictus Ajayi of Eleta Eye Institute/University of Ibadan, College of Medicine spoke on "Ocular Inflammation: the Good, the Bad and the Future". He provided an overview of acute inflammatory responses in the eye. Dr. Ajayi then enumerated the different chemicals that are produced or released by the eyes, which have inflammatory properties and could play a role in the regulation of intraocular pressure. He concluded that there are other unidentified substances, which may hold the key to the cure of certain complex eye diseases.

Dr. Taiwo's lecture was entitled "Novel Therapeutic Approaches to Musculoskeletal Inflammatory Diseases". She discussed the contribution of pro-inflammatory cytokines including interleukin and tumor necrosis factor in the development of osteoarthritis. Dr. Taiwo also highlighted the advances and challenges of a pharmaceutical drug design and discovery effort to identify matrix metalloproteinase inhibitors as disease modifiers of osteoarthritis.

Dr. Suresh Tyagi of The University of Louisville School of Medicine, USA presented a paper on "Congenic Expression of Tissue Inhibitor of Metalloproteinase Associated with Hypertension and Left Ventricular Hypertrophy (LVH) in Dahl salt-sensitive rats." His paper concluded that cardiac dysfunction and LVH in Dahl sensitive-salt rats were indeed associated with increased matrix metalloproteinase and decreased tissue inhibitor of metalloproteinase levels and that congenic transfer of tissue inhibitor of metalloproteinase ameliorates LVH and cardiac dysfunction of Dahl salt-sensitive rats.

Other papers presented documented the potential roles of African medicinal plants in the treatment of inflammatory diseases. Dr. Janet Makinde of the University of Ibadan presented a paper on the "Pharmacological Evaluation of Plant-derived Natural

Products: The Challenges". She chronicled the dependence of man on the earth's diverse plants, world wide, and the importance of herbs in the health delivery system of 80% of the world population. She indicated that a high proportion of prescribed drugs are of plant origin. Dr. Makinde then identified the challenges of research on the pharmacological properties of herbal plants to include ecological, seasonal variation, species differences, processing (sun or air drying) and time of harvest (day, night, evening).

Dr. Peter Akah of the University of Nsukka described the "Anti-Inflammatory Properties of Various Medicinal Plants". He reported that these plants have varying anti-inflammatory properties, of which some active anti-inflammatory principles have been identified, isolated, and characterized. They include compounds such as lupeol, premnazole, pinonitol, parthenolide etc. Dr. Akah concluded that these active ingredients could provide a comparative advantage over the existing active drugs.

Dr. Peter Aziba of the University of Swaziland, Kwaluseni, South Africa presented his work on "Medicinal Plants in Managing Pain in Swaziland-an Experimental Investigation". He detailed the traditional use of *Ledebouria ovaltifoltia* (Umhlabhelo) in the treatment of fractures, the cleansing of bowel of women after childbirth. Dr. Aziba's report presented evidence that confirmed the anti-spasmogenic and analgesic actions of this herb. He concluded that further analysis and research would help to elucidate the pharmacological activities of this herb.

Dr. Charles Okoli of The University of Nigeria, Nsukka, in his poster presentation entitled "Evaluation of the Antimicrobial, Anti-inflammatory and Antioxidant Activities of Roots of Acanthius montanus and T. anderson, a traditional remedy for furuncle", concluded that the efficacy of the roots of A. montanus in the medicinal treatment of boils may derive from their antimicrobial, anti-inflammatory and antioxidant activities. In another poster presentation, Dr. Al-Jarallah of Kuwait University presented "RhoA/Rho-kinase Pathway and Reduced Carbacholinduced Contraction in Colitis" and showed that the reduced carbachol-induced contraction observed in colitis was not due to Rho-kinase mediated Ca<sup>2+</sup> sensitization. Dr. Egbuhuzo of the University of Louisville School of Medicine, USA presented a poster on "Aortic Reactivity During Copper Deficiency in Rats: Effects of Tempol Treatment." showed that reduced dietary Cu<sup>2+</sup> level impairs nitric oxide relaxation. It was suggested that antioxidant supplementation may be an effective treatment of copper deficiency.

Dr. Asekomeh of the University of Port Harcourt presented "Compliance of HIV/AIDS Patients in Port Harcourt to Antiretroviral therapy" reporting the that factors that are associated with poor antiretroviral therapy compliance are depression, preference for alternative medical approach like herbal medications, poor knowledge of HIV/AIDS and poor social support.

The second plenary lecture was delivered by the guest of honor, Professor David T. Okpako, FAS, who was celebrating his 70th birthday, and had taught, and mentored many of the participants of the symposium. The choice of the theme for the symposium was in recognition of Professor Okpako's interest in the field of inflammation. , who over the years had brought a team of Nigerian scientists together for the study of inflammation. Professor Okpako was a member of faculty in the Department of Pharmacology and Therapeutics at the College of Medicine, University of Ibadan and had taught pharmacology to thousands of medical, dental, pharmacy, B.Sc. honors and graduate students, and had played a major role in the shaping the academic careers of many of his students. Professor Okpako's lecture was on "Inflammation: Personal Reflections, Unanswered Ouestions". He provided historical perspectives on a number of observations made in his laboratory between 1970 and 1985 which left unanswered questions. For instance, what is the role of prostaglandins in the generation of cholera diarrhea? Professor Okpako also recommended that a careful investigation of African traditional herbal remedies will yield important products for the treatment of various diseases with inflammation as an underlying pathology.

Corporate support of the meeting came from The Association of African Biomedical Scientists Inc., USA; ITSI Biosciences of Johnstown, PA; AKOM Survey Services, Calabar; ASCON Oil Company (Nigeria) Limited, Lagos; Eli Lilly & Company, Fugro Consultants Nigeria Limited, Port Harcourt; and University of Houston College of Pharmacy, Houston-USA.

This conference organized by the AABS members can be a model for future conferences and scientific meetings to be organized by AABS Inc in partnership with other African scientific organizations along with local (Africa-based) scientists. Such an enterprise will further research endeavors in Africa and further expose our scientists to others, in similar disciplines and would help encourage collaborations between among African scientists.

Dr. Momoh A. Yakubu is a Senior Scientist/Associate Professor at the Texas Southern University Center for Cardiovascular Diseases, College of Pharmacy and Health Sciences, Houston TX

Anyigba played host to Nigerian Society of Experimental Biology (NISEB) at their 5th International Conference (NISEB 2007) February 28th – March 3rd 2007, held at Kogi State University, Anyigba, Kogi State, Main Auditorium.

Reported by Momoh A. Yakubu, PhD.

Anyigba, Kogi State-Nigeria, played host to scientists from Africa, Americas, Australia. Europe, Asia, and the Middle East who came to attend the 5th NISEB International Conference 2007. Various scientific papers were presented under the Theme of the conference "TRANSLATING LIFE SCIENCES INTO SUSTAINABLE LIVING STANDARD: A GLOBAL CHALLENGE" and discussed under the sub-theme:

- ❖ Impact of life sciences: Retrospective assessment
- ❖ Appraisal and prospects of life sciences on living standards
- Ensuring food security through life sciences

- ❖ Wealth and health generation through life sciences
- Innovative technology for the development and promotion of life Science
- Environmental challenges and public health implications of advances in life sciences
- ❖ Benefits of Modeling approaches and Bioinformatics on living standards
- Prospects for research funding and collaboration in life sciences

The NISEB Conference is held every two years.

## **ANNOUNCEMENTS**

Future AABS Meeting\*

### **General Meeting:**

2008, April 5-9, San Diego, CA

\* Exact details to be announced

## **Opportunities for Research and Travel:**

Minority Access to Research Careers (MARC) <a href="http://marc.faseb.org/">http://marc.faseb.org/</a>

## **Meeting Announcements:**

American Heart Association: <u>61st Annual High Blood Pressure</u> <u>Research Conference 2007</u>, September 26–29, 2007, Westin La Paloma, Tucson, AZ. Abstract Submission Closes March 30, 2007 at 5 p.m.

Nigerian Association of Pharmacists and Pharmaceutical Scientists in the Americas, Inc. (NAPPSA). First annual conference Houston, Texas September 14-16, 2007

**The 8th World Congress for microcirculation:** August 15-19, 2007 at the Midwest Airlines Center Madison Wisconsin: New Abstract Deadline-April 16 www.microcirccongress.org

**BioMedical Transporters 2007 Conference:** August 12-16 in Bern, Switzerland: www.bioparadigms.org/biomedical07/07.htm

**Targeted Designs for Clinical Trials:** July 19-20, 2007-Philadelphia, PA; <a href="https://www.gtcbio.com/conference/">www.gtcbio.com/conference/</a>

Rediscovering Biomarkers: Detection, Development, and Validation: July 23-24, 2007 San Diego, CA <a href="https://www.gtcbio.com/conference/">www.gtcbio.com/conference/</a>

**Protein Discovery & Development:** September 6-7, 2007-Washington DC; <a href="www.gtcbio.com/conference/">www.gtcbio.com/conference/</a>

**2nd International Congress on Immune Mediated Diseases:** September 10-15, 2007 - Moscow, Russia <a href="https://www.gtcbio.com/conference/">www.gtcbio.com/conference/</a>

Winning Formulary and Reimbursement Strategies for Effective Product Planning: September 10-11, 2007 - Philadelphia, PA www.gtcbio.com/conference/

**3rd Annual Therapeutic Strategies against Neurodegenerative Conditions:** September 20-21, 2007 - San Francisco, CA www.gtcbio.com/conference/

## NEWS ON AABS MEMBERS

#### Moves:

**Thomas Fungwe, Ph.D.**, has moved from Acorn State University, MS to the USDA Center for Nutrition Policy and Promotion. Alexandria, VA.

**Vincent K. Tsiagbe, Ph.D.,** has moved from New York University School of Medicine, NY to University of Medicine and Dentistry of New Jersey Department of Oral Biology and Department of Pathology, Newark, NJ.

**Sunday, O. Awe, PhD.,** has moved from the University of Louisville Department of Physiology to the Food and Drug Administration, Baltimore, MD.

## RESEARCH POSITIONS

As part of a major initiative by the National Institutes of Health to expand and strengthen Texas Southern University's biomedical research activities, the Center for Cardiovascular Diseases invites applications from MD, DVM, and/or PhD degree holders for employment as Postdoctoral Fellows and Scientist/Senior Scientist. Applications are encouraged from candidates with relevant training and experience in all areas of cardiovascular sciences, including but not limited to microcirculation, vascular reactivity, vascular biology, renal function, cell signaling, and genomics as applicable to hypertension, diabetes, atherosclerosis, and renal failure. At the Scientist level, the Center for Cardiovascular Diseases seeks outstanding and promising researchers with not less than 4 years of post PhD experience and a fundable research proposal. Candidates for the Senior Scientist position should have not less than 8 years post PhD experience and should be funded or have established fundable research proposals. Attractive start up funds are available and excellent opportunities exist for collaboration with research partners at Baylor College of Medicine, the University of Houston, the University of Houston Health Science Center, and other area institutions- Applicants should send their curriculum vitae, list of publications, 3 letters of recommendation and an abbreviated research proposal (1-2 pages) to Dr. Adebayo Oyekan, Director, Center for Cardiovascular Diseases, College of Pharmacy and Health Sciences, Texas Southern University, 3100 Cleburne

Avenue, Houston, Texas 77004. E-mail: <u>oyekan\_ao@tsu.edu</u> Texas Southern University is an equal opportunity employer committed to excellence through diversity.

## **Light Comedy Center**

## **Quick facts (Trivia)**

Compiled by Adebayo O. Oyekan DVM, PhD.

#### On average:

- People can hold their breath for one minute. The world record is seven-and-a-half minutes. On average, you breathe 23,000 times a day. A person remains conscious for eight seconds after being decapitated.
- You speak almost 5,000 words a day although almost 80% of speaking is self-talk (talking to yourself).
- A newborn baby's head accounts for one-quarter of its weight.
- Einstein's brain was of average size (1375 grams 49 oz).
- $\bullet$  Over the last 150 years the average height of people in industrialized nations increased by 10 cm (4 in).
- In the 19th century, American men were the tallest in the world, averaging 1.71m (5'6"). Today, the average height for American men is 1.75m (5'7"), compared to 1.77m (5'8") for Swedes, and 1.78m (5'8.5") for the Dutch.
- The length from your wrist to your elbow is the same as the length of your foot.

Fingernails grow nearly 4 times faster than toenails.

- Your heart beats 101,000 times a day. During your lifetime it will beat about 3 billion times and pump about 400 million liters (800 million pints) of blood.
- A typical athlete's heart churns out 25 to 30 liters (up to 8 gallons) of blood per minute.
- Approximately two-thirds of a person's body weight is water. Blood is 92% water. The brain is 75% water and muscles are 75% water
- If the amount of water in the body is reduced by just 1%, one will feel thirsty.
- A person can live without food for about a month, but only about a week without water.
- You'll drink about 75,000 liters (20,000 gallons) of water in your lifetime.
- The first human sex change took place in 1950 when Danish doctor Christian Hamburger operated on New Yorker George Jargensen, who became Christine Jargensen.
- The muscle that lets your eye blink is the fastest muscle in your body. It allows you to blink 5 times a second. On average, you blink 15,000 times a day. Women blink twice as much as men.

Dr. Adebayo O. Oyekan is a Professor and Director of the Center for Cardiovascular Diseases, Texas Southern University College of Pharmacy and Health Sciences, Houston, TX.

## **Interesting facts about the Nobel prize**

Complied by Adebayo O. Oyekan, DVM., PhD.

- The 1st Nobel prizes were awarded in 1901, six years after the death of Alfred Nobel
- Prizes were awarded originally in five subject areas Chemistry, Physics, Physiology or Medicine, Literature and Peace
- A 6th subject was added in 1969
- Despite fierce protests from mathematicians, Mathematics has not made it to the list of subjects considered for the Nobel prize
- There are 787 Nobel laureates to date comprising 735 men and 33 women
- The Curie family holds the greatest number of Nobel prizes
- The youngest Nobel Laureate was Lawrence Bragg who was 25 years old when he received the Physics prize with his father in 1915
- 2 Nobel laureates declined the prize (i) Jean-Paul Sartre declined the prize in Literature in 1964 because he consistently shunned official honors (ii) Le Duc Tho declined the 1973 Peace prize citing the Vietnam situation as the reason.

### There are 4 individual multiple Nobel laureates:

- i) Linus Pauling (1954, Chemistry; 1962, Peace)
- ii) John Bardeen (1956 and 1972, Physics)
- iii) Madam Curie (1903, Physics; 1911, Chemistry)
- iv) Frederick Sanger (1958 and 1980, Chemistry)

<u>Family Nobel laureates</u> – To date, there are 6 father-son pairs, 1 father-daughter pair, 1 mother-daughter pair, 4 married couples, and 1 set of brothers.

#### Father-son pairs

- i) William Bragg and Lawrence Bragg (1915, Physics)
- ii) Arthur Kornberg (1959, Physiology or Medicine) and Roger Kornberg (2006, Chemistry)
- iii) Niels Bohr and Aagee N Bohr (1922, Physics)
- iv) Manne Siegbahn and Kai M Siegbahn (1924, Physics)
- v) Hans von Euler-Chelpin and Ulf von Euler (1929, Chemistry)
- vi) Joseph J. Thomson and George Paget Thomson (1906, Physics).

#### Father-daughter pair

Pierre Curie (1903, Physics) and Irene Joliot-Curie (1935, Chemistry).

## Mother-daughter pair

Madam Curie (1911, Chemistry) and Irene Joliot-Curie (1935, Chemistry).

#### Married couples

- i) Marie Currie and Pierre Currie (1903, Physics)
- ii) Irene Joliot-Curie and Frederic Joliot (1935, Chemistry)
- iii) Gerty Cori and Carl F Cori (1947, Physiology or Medicine)
- iv) Alva Myrdal (1982, Peace) and Gunnar Myrdal (1974, Economics).

#### **Brothers**

Jan Tinbergen (1969, Economics) and Nikolas Tinbergen (1973, Physiology or Medicine).

## **ADVERTISEMENTS**

#### **Postdoctoral Position Wanted:**

I am a student member of AABS who just graduated with Ph.D. degree in Pharmacology from Idaho State University. I am seeking a postdoctoral position in neuroscience or related area. I have excellent background in neuroscience, biochemistry and cell biology. Let me know via e-mail if you have or know of such an opportunity. A. Orina Isaac, Ph.D.

E-mail: isaacorina@otc.isu.edu

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- c) Database search.
- d) Protein annotation and gene ontology classification.

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