

Am I eligible - can I apply?



This new award is intended to assist Society members in developing countries and Eastern Europe to visit laboratories and give lectures and training in appropriate areas of applied microbiology, or support overseas members to visit UK laboratories to receive training in appropriate areas of microbiology, or to support technology transfer in applied microbiology for which sources of funding do not exist.

Nominations for awards will normally be considered by the Society's Awards panel in March, July and November each year.

To apply, please read the guidelines below and then submit your application by email or post to the Society Office.

GUIDELINES

1. Individual awards up to a maximum of £5000 will be considered.
2. The laboratory supporter must be a full member of the society and have held membership for at least 3 years.
3. Detailed information must be provided about the relevance of the application and the available local support.
4. Each application must be accompanied by full supporting documents.
5. A condition of the funding is that an appropriate report must be written for publication in SfAM Microbiologist magazine together with photographs where possible.
6. Applications should be sent by email or by post to the Society Office.

www.sfam.org.uk/members/prizes.php

Dr. Oguntoyinbo Folarin Anthony received an Overseas Development Award to conduct research at Nottingham University



Microbial diversity and kinetics during cassava fermentation for gari production in Nigeria

MY PROFOUND APPRECIATION goes to the Society for Applied Microbiology for the overseas development award that enabled me to conduct research at the University of Nottingham, under the supervision of Dr. Christine E. R. Dodd between 14th May -13th September 2004. The project looked at microbial diversity and kinetics during cassava fermentation for *gari* production in Nigeria. It was very interesting and I felt it a privilege to be working in such an excellent research team and faculty where state of the art facilities were available for my work.

On arrival at the school of Biosciences, the peaceful environment and the serene atmosphere of Sutton Bonington Campus was a welcoming and appealing place to live and study. I was welcomed by my host, Dr. Christine E. R. Dodd, who had been anxiously awaiting my arrival. I will always remember her kind hospitality. She gave me useful information about transportation, shopping, maps and campus information. It was great to finally meet my host whose contact information I obtained through the Society Handbook. On getting in touch with her via email, she gladly accepted my proposal and made many helpful suggestions.

I was then taken to my accommodation at the post graduate hall, Kingston House, by Dave Fowler, a very hard working, intelligent and tireless technician. Dave also made arrangement for the depositing of my fermented cassava samples to the cold room (4 °C).

I had a full weekend to acclimatize to my new environment. I found that Kingston House was like an international hostel where I met postgraduate students from different countries. It was summer and we had plenty of time and opportunity to socialize. I met students working in Applied Biomolecular Science, Applied Molecular Microbiology and Post doctoral fellows from all over the world.

The school of Agriculture of the University of Nottingham is Located at Sutton Bonington, a village between Loughbrough and Kegworth. It accommodates the Schools of Biosciences, Plant sciences and Agriculture. On Monday, I met with Dr.

Dodd to discuss the project in detail. Her kind suggestions and advice were excellent and much appreciated.

The level of organization of Food Microbiology under the school of Food Sciences is excellent. I sat the Laboratory entrance test, which I passed after my third attempt, and I was then apportioned a bench in the laboratory and shown the facilities therein. It is a big laboratory with the best of facilities. My first impression about the running of the laboratory was the increased use of disposable plasticware over glassware. This has made experiments easier to handle and enables them to be carried out more quickly.



Our project was to evaluate the total community of bacteria and fungi involved during the fermentation of cassava for *gari* production. Here we used Denaturing Gradient Gel Electrophoresis (DGGE) to determine the microbial profile of both the dominant and non dominant, and to differentiate between culturable and non-culturable microorganisms involved in the fermentation. DNA sequences of the PCR fragments obtained from purified DGGE

bands were determined by comparison with the closest relative of 16SrDNA sequences. This was performed by searching the GenBank DNA database using a Blast algorithm. We also used Pulse Field Gel Electrophoresis (PFGE) to examine the diversity among the dominant culturable bacteria. This was complimented by phenotypic characterization of the Lactic acid bacteria. The information generated was valuable in creating a better understanding of the taxonomy and succession of the microbial population as fermentation progresses. However, information about the physiology of the dominant bacteria was also generated, in particular that of the amylolytic lactic acid bacteria. Also, the dynamics of yeast during the fermentation process was determined. The yeast population was observed to be significant after 48 hours of fermentation and they were subsequently identified using the API system. Identification of closest relatives of the DGGE 18S rDNA sequence gave us the total picture of the yeast community during the fermentation.

Effort is ongoing to develop our manuscript for publication. I am very grateful to SfAM for the opportunity granted me to broaden my horizons in the field of microbiology. This training and exposure has given me a better understanding of my research. The overseas development award has created a great sense of belonging for me as a young scientist from a developing country. This exposure has given me ample opportunity to meet and interact with microbiologists from a different part of the world, all of whom are working on different topics such as proteomic, biophotomic and functional genomics. I am particularly grateful to Mary Obodi, Phil Richard, Avinach, Pieter Gouws, Phil Hill, Cath Rees and all my friends in the Food Microbiology Laboratory for their kind support which contributed immensely to my work and made my research a brilliant success.

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