

## Proposal for Forming an IAA Study Group

**Title of Study: *International Cooperation for Space Exploration Knowledge Sharing and Development in Africa***

**Proposer(s):** Marlene MacLeish  
(Must be member(s) of the Academy M or CM)

**Primary IAA Commission Preference:**  
Commission 2 – Space Life Sciences

(From Commission 1 to Commission 6)  
Commissions: 1 Space Physical Sciences, 2 Space Life Sciences, 3 Space Technology & Systems Development, 4 Space Systems Operations & Utilization, 5 Space Policy, Law & Economics, 6 Space and Society: Culture and Education

**Secondary IAA Commission Interests:**  
Commissions:  
3 - Space Technology & Systems Development  
6 - Space and Society: Culture and Education  
5 - Space Policy, Law and Economics  
(From Commission 1 to Commission 6)

### Members of Study Team

<b>Chair(s):</b>	<b>Drs:</b>	Dr. Marlene MacLeish-USA Dr. Ron White (IAA) Dr. Joseph O. Akinyede (Nigeria) (Must be member(s) of the Academy, M or CM)
<b>Secretary:</b>		<b>To be decided</b>
<b>Other Members:</b>	<b>Nigeria:</b>	Dr. Hamisu MaiUnguwa Mr.IFeanyi Ezeh
	<b>Cameroon:</b>	Dr. Fongot Kini-Yen Kinni
	<b>Greece:</b>	Dr. Chrisoula Kourtidou-Papadeli (E-Learning)
	<b>USA:</b>	Dr. Larry Young (NSBRI-Graduate Education) Dr. William Thomson (NSBRI-Education-Outreach) Dr. Louis Sullivan, Morehouse Sc. Med. President Emeritus-Touch Foundation ( <i>not confirmed</i> ) Dr. Elizabeth Ofili (Space Medicine)
	<b>DLR:</b>	Dr. Gerda Hornick ( <i>not confirmed</i> )
	<b>Others</b>	

(Open to members and non- members of the Academy)

### Short Description of Scope of Study

**Background:** The International Academy of Astronautics (IAA) in collaboration with the National Research and Development Agency (NASDRA) of Nigeria held the "3<sup>rd</sup> African Regional Conference", Nov. 24-26, 2009, in Abuja, Nigeria. NASDRA, established in 1998, is administered by the Nigerian Federal Ministry of Science and Technology. NASRDA's mission is "to pursue and attain ... space capabilities [that] enhance the quality of life... [for Nigerians]. The Agency's space policy focuses on the development of space science and technology through research, development, and capacity-building in science, engineering, and space law. Six centers bear responsibility to accomplish NASRDA's mission. These are: (1) Center for Space Science and Technology Education, (2) Center for Basic Space Science, (3) Center for Geodesy and Geodynamics, (4) Center for Satellite Technology Development, (5) Center for Space Transport and propulsion, and (6) the National Centre for Remote Sensing.

A Memorandum of Understanding among the IAA, NASDRA and Morehouse School of Medicine (MSM) was drafted at the conclusion of the Conference. The MOU recommended that the IAA take action to convene an IAA Study Group to advance an indigenous space life sciences education and research roadmap for NASDRA. This proposal seeks the establishment of a Study Group under the aegis of IAA Commission 2 to engage select international experts to design a global space life sciences education and public outreach (EPO) model that: (1) strengthens NASDRA and Africa's future space exploration workforce; (2) promotes science, technology, engineering and mathematics (STEM) and space scientific literacy to share information about the benefits of space technologies for health and life in Africa; and suggests steps to build select NASRDA space life sciences programs.

### Overall Goal: *(Expected scientific or practical benefit of the study group's efforts)*

The overall goal of the proposed IAA Study Group is to create a roadmap that will forge a consensus on what is needed to develop space life sciences in Africa.

### Intermediate Goals: *Email works, workshops, stand alone conferences, interim publications, etc.)*

- Goal 1: Convene and charge SG members to: (i) summarize recommendations from past IAA studies that are relevant to this activity (ii) recommend four themes/relevant actions that are considered necessary for NASDRA (specifically) and Africa (generally) to thrive in the 21<sup>st</sup> century international space exploration community
- Goal 2: Convene the following Focus Groups (FG) comprised of space life sciences experts in the following areas: (i) K-12 education/outreach; (ii) higher education; (iii) research; (iv) workforce development; (v) telecommunication
- Goal 3: Convene the full SG to finalize recommendations
- Goal 4: Prepare Interim Report - for planned IAA, Nov. 2010 USA Meeting. The Report will include: (i) description of key elements of the future/promise of space life science; (ii) overview of how NASDRA and other space faring African countries may develop indigenous space life sciences programs in a globalized space faring world
- Goal 5: Finalize and circulate Report as required by the IAA regulations

**Time Line:**

*(Cannot exceed three years)*

- Goal 1: Convene SG - by end of May 2010
- Goal 2: Convene FG - by end of June 2010
- Goal 3: Convene Full SG to review recommendations – by end of July 2010
- Goal 5: Draft Preliminary Report (PR) - by end of August 2010
  - Circulate PR for response- by end of September 2010
  - Finalize Preliminary Report by end of October 2010
- Goal 6: Schedule meetings to expand PR-January-December 2011
  - Publish final Report - Dec. 2011

**Final Product (Report, Publication, etc.):**

- (1) IAA Report, *A Space Life Science Roadmap For Africa*
- (2) Draft plan for 4<sup>th</sup> IAA African Regional Conference

**Target Community:** NASDRA and select space agencies from other African space faring countries

**Support Needed:** No special support required

**Potential Sponsors:**

- 1. Will seek funds to sponsor meetings
- 2. NSBRI release time/effort for SG Chair- M. MacLeish
- 3. IAA to sponsor publication of Interim and Final reports

To be returned to the IAA Secretary General Paris

by fax: 33 1 47 23 82 16 or  
by email: [sgeneral@iaamail.org](mailto:sgeneral@iaamail.org)

**Date:**

*(No Signature required if document authenticated).*

**Follow-up Section for IAA use only**

**Initial Phase**

**Application received:**

**Commission Approved:**

**SAC Approved:**

**Web Site Section opened:**

**Members Formally Appointed by IAA:**

**Final Phase**

**Peer Review by Commission Completed:**

**Recommended by the Commission:**

**Final Report Received:**

**SAC Approved:**

**BOT Accepted:**

**Publisher Selected:**

**Study Published:**