

Planning Document For A U.S. Research And Study Abroad Program In Geneva

Document Outline – Draft 4.0

Abstract (Samors)

Executive Summary (Samors)

1) INTRODUCTION (NEAL)

- Description Of The Problem
- Importance Of Exposing Undergraduate Students To Frontier Science
- World Trends In Location Of Frontier Scientific Facilities: Loss Of U.S. Leadership
- Options For U.S. Action
- Layout Of Whitepaper

2) CONSTRAINTS ON FULL U.S. PARTICIPATION IN FRONTIER RESEARCH IN SELECTED FIELDS (NEAL)

- Large Hadron Collider
- International Linear Collider
- Nanotechnology Centers
- Nuclear Fusion Research

3) Study Abroad Programs, Their Impacts, Their Challenges, And Their Logistics (Megginson, Miller)

- Historical Assessment And Known Impact Of Study Abroad Programs In Traditional Fields
- Why Has Science Study Abroad Not Been Previously Emphasized
- Critical Issues To Be Managed

4) ADVANTAGE OF A NATIONAL CENTER VS. ASSORTED INDIVIDUAL EFFORTS (GOLDFARB)

- Avoidance Of Duplication Of Search For Solutions In Common Geographical Areas
- Facilitating Logistics (Improved Efficiency for Housing, Security, Etc.)
- Coordination of Local Courses and Aiding Credit Repatriation
- Providing Assistance as Appropriate to Individual University Programs
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5) Analysis Of Impact Of The Current Summer Student Program At CERN (Goldfarb)

- The Extraordinary Research Opportunities of CERN

- **The Need To Retain Interest Of U.S. Students In Perhaps The Most Basic Field In The Sciences**
- **Research Goals At CERN**
- **Recruitment Process**
- **Mentoring Structure**
- **Project Assignment**
- **Accommodations**
- **Financial Support**
- **Monitoring Of Progress**
- **Cultural Impact**
- **Program Evaluation**
- **Long Term Tracking**
- **Student Assessments**
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6) Proposed New Program (Goldfarb)

- **Program Scope (Number Of Students & Justification For Number)**

- **Proposed Program Distribution (Physics, Health, Human Rights, Etc.)**
- **Accommodations**
- **Security Issues**
- **Insurance**
- **Program Management**
- **Student Costs**
- **Credit Repatriation (Brock)**
- **Student Mentoring**
- **Budget Model (Only Overview Here)**
- **Outcomes (Neal, Krisch)**
- **Timeframe**
- **Language Requirements**
- **Cultural Components**

7) Prospects For Future Program Enlargement Involving Other Fields (Kupperman)

- **World Health Organization**

- **UM-Flint Teacher Program**
- **Pre-College Program**
- **Human Rights Commission**
- **Climate Change Organization**

8) SITE LOCATION OPTIONS IN GENEVA (PWC)

- **Facility Requirements**
- **Leasing Options**
- **Lease Underwriting**
- **Maintenance**
- **Security**
- **Transportation**
- **Local Regulations (National, Cantonal Considerations)**
- **Insurance**

9) Funding Models (Miller / PWC)

- **Operation of Current Programs (Miller)**
- *Student Contributions*

- *Financial Aid Contributions*
- *University*
- *Private Foundation Contributions*
- *Federal Aid*
- Proposed New Strategies (PWC)

10) Assessment Of Fundraising Options (Match To Mission, Capacity) (Samors)

- Possible Legislative Actions
- National Science Foundation
- Department Of Energy
- Sloan Foundation
- Lounsbery Foundation
- Kavli Foundation
- James Simon (Foundation Name?)
- Gates Foundation
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11) OVERSIGHT AND PROGRAM MANAGEMENT **(PWC, ET AL.)**

- **Board And Management Structure (PWC)**
- ***Single University***
- ***New University Consortium***
- ***Existing University Consortium***
- ***New Private Entity***
- **Staffing Structure (Goldfarb)**
- ***Program Director***
- ***Associate Directors And Coordinators***
- **External Advisory Board (Neal)**
- **Auditing Mechanism (PWC)**
- ***Current University Or Consortium Affiliated Auditing Firm***
- ***Specially Engaged Auditing Firm***
- ***Auditing Questions***

- Evaluation Mechanism (Campbell)

12) IMPORTANCE OF COLLABORATIVE TOOLS (GOLDFARB)

- Allowing Students To "Sit In" On Key Class Back At Their University
- Providing Pipeline To Keep U.S. Based Students To Keep Abreast Of LHC Developments Via One Of Their Own Members
- Allowing Second Level Of Mentorship By Staying In Contact With Faculty Sponsor Back Home

13) Description Of Pilot Project (Neal)

14) Proposed Implementation Timetable (Goldfarb)

15) Summary (Samors)

16) Appendices

- Letters Of Endorsement
 - *U.S. ATLAS*
 - *U.S. CMS*
 - *ATLAS Spokesperson*

- *CMS Spokesperson*
- *Universities Research*
- *Fermilab Director*
- *APLU*
- *CIC*
- *Universities Committed To Early*
- *Division Of Particles And Fields*
- List of Example Student Projects