Outline

1. Meet the Committee
2. What is APEX?
3. APEX 7
4. High Altitude
5. Research
6. Expectations of volunteers
7. Experiences of a Volunteer
8. Costs/Application Process
9. Q&A
10. Pear Tree
Meet the Committee

CAMERON
Expedition Leader

DAVID
Expedition Leader
Meet the Committee

ANYA
Head of Research

CAMI
Head of Funding, Grants and Sponsorship

BEN
Head of Funding, Grants and Sponsorship
Meet the Committee

ELLA
Head of Volunteers and Wellbeing

ELS
Head of Volunteers and Wellbeing

COLETTE
Head of Communications and Events
What is APEX?

- Founded by a group of Medical Students in 2001
- Altitude Physiology Expeditions
  - High Altitude Medical Research
- 6 Successful Expeditions to Bolivia
  - Usually occurs around every 3 years
  - Most recent June/July 2022
  - Volunteers from the previous expedition form the committee to lead the next one
- World’s leading student led high altitude expeditions
What is APEX?
Largest simultaneous controlled ascent in history!

Dates
- Saturday 28th June 2025 → Sunday 13th July 2025

Country
- Bolivia

Accommodation
- La Paz Hostel (TBC) @3800m
- Huayna Potosi Base Camp @4800m
June 28th 2025

Arrive in La Paz (3800m)

5 Nights
Arrive in La Paz (3800m)

La Paz -> Huayna Potosi (4800m)

5 Nights

July 3rd 2025

8 Nights

June 28th 2025
Arrive in La Paz (3800m)

June 28th 2025

La Paz -> Huayna Potosi (4800m)

July 3rd 2025

5 Nights

Huayna Potosi -> La Paz

8 Nights

July 11th 2025

1 Night
Arrive in La Paz (3800m)

June 28th 2025

La Paz -> Huayna Potosi (4800m)

July 3rd 2025

5 Nights

Huayna Potosi -> La Paz

8 Nights

July 11th 2025

1 Night

End of Expedition

July 13th 2025 @ 00:00

Post-Exped. Travel
Altitude sickness

- >2500m
- Unable to predict individual response (yet!)
- Content of air is the same
- Partial O2 Pressure Roughly 50% of Sea Level
Acute Mountain Sickness (AMS)

- Common
- Scoring Criteria (LLS)
  - Used on Expedition

HAPE = Fluid in Lungs
HACE = Fluid in Brain
Severe but RARE
→ RAPID DESCENT
Safety on APEX 7

4x Expedition Doctors

- **Specialists** in the field of Altitude Medicine, Remote and Rural Medicine, Respiratory Medicine, General Practice
- Medical equipment

*24/7 access to transport to lower altitudes*

https://www.uptodate.com/contents/high-altitude-illness-including-mountain-sickness-beyond-the-basics
Research

Why?

- APEX was founded with the intention of conducting medical research at high altitude
- Unique - completely led by students at UofE
- Findings used internationally to improve patient care
  - Hypoxic patients in critical care
  - Mountaineers going to high altitudes
Research- APEX 6

Circadian rhythms

Neutrophil Study

Calculating lung oxygenation

Taking blood for the first time!

Dark adaptation
APEX 7 Research

- **Thermogenesis** - how does hypoxia affect brown adipose tissue metabolism?
  - Clinically relevant - diabetes etc
- **Neutrophil study**
- **Mood disorders and Acute Mountain Sickness scoring**

*More to come!!*
Open to all students from UofE- not just medical students

What does this mean for me?

- Participation in research studies as a subject
  - You consent to the studies you want to take part in
- Opportunity to help take part in medical research
- Not a requirement to be super interested in research- you just need to be willing to commit to doing the necessary things of the projects you have consented for
  - E.g. taking part in baseline testing, filling in the necessary questionnaires, etc
  - Some studies but not all will involve procedures like getting blood taken
Expectations of Volunteers

Pre-Expedition

1) Baseline Testing/Samples
   QMRI/Central

2) Team Building Events / Socials / Weekends

3) Medical Talks/Information Evenings
Expectations of Volunteers

On Expedition
1) Data Collection
2) Medical Checks
3) Buddy Support System
4) Sponsorship/Media Tasks
Expectations of Volunteers

Post Expedition

1) Post-expedition Testing/Samples

2) Reunion Events!
Experiences as a Volunteer on APEX 6

Pre Expedition - Team building/socials
Experiences as a Volunteer on APEX 6

Pre Expedition - Travel
Experiences as a Volunteer on APEX 6

Acclimatisation - La Paz
Experiences as a Volunteer on APEX 6

On Expedition - Up the mountain - Hostel
Experiences as a Volunteer on APEX 6

On Expedition - Up the mountain - Day in the life

9am: Breakfast

Morning: Walk/swim, experiments

12-1pm: Lunch

Afternoon: Reading (book club), games, journaling, TV show, more experiments

7pm: Dinner

Evening: Games, bonfire
Experiences as a Volunteer on APEX 6

End of Expedition/Onward travel
Post-Expedition Travelling

Huayna Potosi
Post-Expedition Travelling

Salt Flats (+ Lake Titicaca)
Post-Expedition Travelling
Post-Expedition Travelling

Salkantay Trek (+ Cusco)
Post-Expedition Travelling
Post-Expedition Travelling

Arequipa
Post-Expedition Travelling

Colca Canyon (+ Lima)
Top Tips!!

By Suzie Green, Head of Publicity and Volunteers
Applying

- You don’t need to know people (even better if you don’t 😊)
- Take a chance
- Know what APEX involves

APEX6
LA PAZ, BOLIVIA, 2022
The Research

- Get involved!
- Unique opportunities
- Improve your understanding
- CV...

APEX6
LA PAZ, BOLIVIA, 2022
Volunteer Life

- Learn some good card games
- Bring some good books
- Socialise, make friends, be yourself...

APEX6
LA PAZ, BOLIVIA, 2022
Student Experience

• Social: friendships, relationships, independence, resilience, teamwork, empathy...

• Academic: research experience and insight, 2 perspectives, CV, connections...

• Cultural: languages, culture, food, multiple countries...
• How do you think this trip enhanced your university experience?

  “It gave me an insight into medical research and also introduced me to an amazing group of people who I hope to keep in touch with as I go through university and beyond.”

  “Being a participant of APEX6 has exposed me to a side of medicine seen rarely within the traditional medical curriculum.” “Apex has given me the opportunity to see what it means to be a research participant as well as researcher.”

  “I got the opportunity to meet loads of people on my course, develop skills that will be useful to me in my professional career, and majorly boost my confidence.”
THANK YOU!
## How much will the expedition cost?

<table>
<thead>
<tr>
<th>Costs</th>
<th>Cost and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flights</strong></td>
<td>~£800 Return (Bought In Bulk)</td>
</tr>
<tr>
<td><strong>Expedition Contribution</strong></td>
<td>~£400 (TBC)</td>
</tr>
<tr>
<td><strong>Vaccinations</strong></td>
<td>Essential ones free on NHS</td>
</tr>
<tr>
<td></td>
<td>Extras variable depending on post-expedition plans (~£150 for Rabies &amp; Yellow Fever)</td>
</tr>
<tr>
<td><strong>Insurance</strong></td>
<td>~£50-100 (variable depending on onward travel)</td>
</tr>
<tr>
<td><strong>Additional Costs</strong></td>
<td>Kit, Merch, Spending money, Onward travel</td>
</tr>
</tbody>
</table>
How can I pay for the expedition?

APEX 7

- Reduced costs for all volunteers through grant and sponsorship funding
- Aiming to reduce costs of flights and expedition contribution
- Provision of further subsidised WP places

Fundraising

- Get creative!

Grants

- Go Abroad Fund, RMS travel + Study fund
- Many third-party grants
Application Process

2 Stages

1. Online Form
2. Interview

Online Form opening Early **October 2024**

Interviews **November 2024**

Outcomes - **December 2024**