

# Human Evolution

Past, Present & Future



The African Ape Family



Why the Difference?



Was Man More Aquatic in the Past?

## Anthropological, Medical & Nutritional Considerations

*An International Conference to review the current knowledge about Human Evolution. Special reference is made to consider how Man's evolution has possibly been influenced by a period of adaptation to an aquatic environment.*

### Invited Guests

Sir David Attenborough  
Prof. Dr. Stephen Cunnane  
Prof. Dr. Donald Johanson  
Prof. Sir David King  
Prof. Stephen Oppenheimer

### Sponsors

Hat Trick Productions  
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**Venue:** Grange St. Paul's Hotel,  
London EC4V 5AJ

**Date:** 8-10th May 2013

**For more information visit**  
[www.royalmarsden.nhs.uk/humanevolution](http://www.royalmarsden.nhs.uk/humanevolution)  
**or telephone** +44(0)207 808 2921  
**email:** [conferencecentre@rmh.nhs.uk](mailto:conferencecentre@rmh.nhs.uk)



# Human Evolution

## Organising Committee

Peter Rhys Evans (chairman)  
Prof. Michael Crawford  
Prof. Mario Vaneechoutte  
Dr. Marc Verhaegen

## Under the Auspices of

The British Society for the Advancement of Science  
The Royal Marsden NHS Foundation Trust  
The Royal Society of Medicine  
The McCarrison Society



Peter Rhys-Evans

We present a 2 day symposium to explore new research and evidence which suggests that at some stage during the last few million years, our human ancestors were exposed to a period of semi-aquatic evolution which led to the acquisition of unique and primordial human characteristics, not seen in chimpanzees, gorillas or other primates or terrestrial mammals, but present in different combinations in waterside and aquatic mammals. These include our streamlined shape and upright stance, fur loss and tendency to obesity. Other unique human characteristics such as enlarged brains, tool use and extreme dexterity, our voluntary breath control and ability to speak are unique and not seen in any other terrestrial mammal.

Inspired by Sir Alister Hardy's visionary writings and Elaine Morgan's Aquatic Ape Theory, on the first day we explore the climatic, tectonic, fossil, anatomical, physiological and nutritional data that suggest a littoral evolution of the genus *Homo* on the shores of the Indian Ocean and elsewhere. We highlight the importance of the waterside influences, and discuss how aquatic adaptations in the genus *Homo* permitted their evolution into a large-brained, bipedal hominid that colonized the Old World as far as the island of Flores in Indonesia, Tafelbaai in South-Africa, and Boxgrove and Pakefield in England, trekking along coasts and rivers. We expect to show how this waterside theory finally lays to rest the discredited Savannah Theory.

## INTRODUCTION

On day 2, the theme 'Scars of Evolution' explores the significance of these evolutionary changes, leading to anatomical, physiological and pathological differences in man. Some of these changes have led to enlargement of the brain and the acquisition of speech, important functions that allowed the genus *Homo* to become such a dominant species. Others might be associated with 'unexpected' or even pathological conditions, not seen in other terrestrial mammals, as diverse as neonatal swimming behaviour, obesity, alopecia and acne, hyperhidrosis, lumbar osteoarthritis, varices, inguinal hernias and vaginal prolapses. Other uniquely human conditions such as hyperventilation, sudden infant death syndrome, sleep apnoea syndrome, Cheyne-Stokes breathing and asthma, vasomotor rhinopathy, sinusitis and possibly thyroid disorders and cystic fibrosis may also be related to our waterside evolutionary pathway.

The well-known phrase "We are what we eat" has major implications on our current life-style and health. To close the symposium, there will be a challenging discussion on "Global Health and Nutritional Implications" to explore how insight into our past might help to direct our future health and destiny.

We hope that many who are interested in this waterside aspect of human evolution, not only supporters of the so-called Aquatic Ape Theory, will attend and will take the opportunity of submitting posters for presentation at the meeting.

# PROGRAMME OF EVENTS

## Wednesday 8th May

1700-1900 Registration

1900-2100 **Welcome Reception**  
The Worshipful Society of Apothecaries,  
Apothecaries' Hall, Black Friars Lane, London EC4V 6EJ

## Thursday 9th May      Day 1: Origins of The Naked Ape

0730-0815 Registration and Coffee

0815-0825 **Welcome** *Peter Rhys Evans*  
0825-0845 **Hominin Evolution Revisited (A tribute to Prof. Phillip Tobias)** *Michael Crawford*

0845-1040 **Session 1. Africa or Asia – The Cradle of Mankind?**  
Chairman: *Kathlyn Stewart*      Moderator: *Mario Vaneechoutte*

0845-0920 **Human Evolution and Migration and the Roles of Water Bodies** *Stephen Oppenheimer*  
0920-0940 **Why neither the Savannah nor the Aquatic Hypotheses holds Water** *John Langdon*  
0940-1000 **Coastal adaptations, complex topography, and submerged landscapes:  
an archaeological perspective on human dispersal** *Geoff Bailey*  
1000-1020 **The Palaeoecology of Human Evolution** *Stephen Munro*  
1020-1040 **Discussion**

1040-1110 Coffee

1110-1300 **Session 2. A Theatre of Change – Running or Swimming?**  
Chairman: *Donald Johanson*      Moderator: *Stephen Munro*

1110-1130 **Coastal Migration of Land-Based Mammals** *Javier Caraveo-Patiño*  
1130-1150 **The Wading Hypothesis and the Evolution of Human Bipedality** *Algis Kuliukas*  
1150-1210 ***Homo litoralis*: Pleistocene Diaspora along Coasts and Rivers** *Marc Verhaegen*  
1210-1230 **Specialisations for Diving Animal Species** *Andreas Fahlman*  
1230-1300 **Discussion**

1300-1400 Lunch and Poster Display

1400-1540 **Session 3. Littoral Scenarios for Evolution and Dispersal of Homo**  
Chairman: *Algis Kuliukas*      Moderator: *Martha Lahr*

1400-1420 **Lucy, the Australopithecines and Early Bipedal Apes** *Donald Johanson*  
1420-1440 **Exploitation of Environmental Resources** *Leigh Broadhurst*  
1440-1500 **Neanderthals and their Demise** *Clive Finlayson*  
1500-1520 **Evidence from the Seabed for Hominin Occupation of the  
Coastal Zones throughout the last Million Years** *Nic Flemming*  
1520-1540 **Discussion**

1540-1610 Tea

1610-1800 **Session 4. Worldwide Diaspora**  
Chairman: *Leigh Broadhurst*      Moderator: *Michael Crawford*

1610-1630 **African Origins and Human Dispersals** *Martha Lahr*  
1630-1650 **Happisburgh and European Coastal Settlements** *Nick Ashton*  
1650-1710 **The Archaeology of Multiple Hominin Dispersals  
across Southern Asia** *Michael Petraglia*  
1710-1730 **Who were the First Americans?** *Dennis Stanford*  
1730-1800 **Discussion**

1800 Close

1930 Champagne Reception

2030 Gala Dinner      Grange St. Paul's Hotel, London EC4V 5AJ  
*Hosted by Mr Tony Matharu, Vice-President of Oracle Cancer Trust,  
Managing Director of Grange Hotels, Chairman of Indian Ocean  
Disaster Relief and Chairman of Lord's Taverners (London)*

## Friday 10th May Day 2: The Scars of Evolution

0800-0830 Coffee

0830-0900 Introduction

*Sir David Attenborough*

### 0900-1100 Session 5. Fossil Skulls and Physiological Implications

Chairman: *Sir David Attenborough*

Moderator: *Marc Verhaegen*

0900-0920 Nature's Great Experiment:

The Evolution and Development of the Human Larynx

*Jeffrey Laitman*

0920-0940 Human Breath-Hold Diving Ability

*Erika Schagatay*

0940-1000 The Origin of Speech

*Marc Verhaegen & Mario Vaneechoutte*

1000-1020 The Darwinian Evolution of Speech –

From Near Incipient Vernaculars to Modern Languages

*Bernard Bichakjian*

1020-1040 Aural Exostoses Provide Hard Evidence of Man's Aquatic Past

*Peter Rhys-Evans*

1040-1100 Discussion

1100-1120 Coffee

### 1120-1300 Session 6. Aquatic Adaptations

Chairman: *Erika Schagatay*

Moderator: *Peter Rhys-Evans*

1120-1140 Unique *Homo* Characteristics –

Are they Compatible with a Semi-Aquatic Past?

*Mario Vaneechoutte*

1140-1200 Aquatic Reflexes in Newborn Humans

*Dirk Meijers*

1200-1220 Dental Micro-wear and Diet: the Role of Geographic and Cultural Contexts in Human Evolution

*Pierre-François Puech*

1220-1240 Visual Adaptations to Aquatic Lifestyle

*Anna Gislén*

1240-1300 Discussion

1300-1400 Lunch and Poster Display

### 1400-1540 Session 7. Global, Nutritional and Health Implications (part 1)

Chairman: *Sir David King*

Moderator: *Brunetto Chiarelli*

1400-1420 Pregnancy and Neonates

*Michel Odent*

1420-1440 Survival of the Fattest

*Stephen Cunnane*

1440-1500 Nutrition and Development of the Brain

*Michael Crawford*

1500-1520 Aquatic Foods and Fuelling the Hominin Brain

*Kathlyn Stewart*

1520-1540 Human Brain Changes Resulting From the Aquatic Phase in Human History

*Brunetto Chiarelli*

1540-1600 Discussion

1600-1620 Tea

### 1620-1740 Session 8. Global, Nutritional and Health Implications (part 2)

Chairman: *Cedric Hassall*

Moderator: *Kebreab Ghebremeskel*

1620-1640 The Environmental Challenges of the 21st Century

*Sir David King*

1640-1700 Environment, Nutrition and Cancer

*Dame Valerie Beral*

1700-1720 Poverty and Global Nutrition Crisis

*Kebreab Ghebremeskel*

1720-1740 Discussion

1740-1800 Poster Award Ceremony and Closing Remarks

# Human Evolution – Past, Present and Future

## Anthropological, Medical and Nutritional Considerations

08-10 May 2013

### Fee for 2-day conference on 9th and 10th May 2013:

**Early Bird Rate: £250    Standard Rate: £300**

Early bird rate available for bookings and payments received before 12 midday on 1st February 2013.

### Please tick box(es) if you will be attending the following:

*(There are no additional fees, but limited number of places – early booking advised)*

#### Wednesday 8th May 2013

1900 – 2100 Welcome Evening Reception  
The Worshipful Society of Apothecaries,  
Apothecaries' Hall, Black Friars Lane,  
London EC4V 6EJ

#### Thursday 9th May 2013

1930 – 2230 Champagne Reception and Conference Dinner  
Grange St. Paul's Hotel,  
10 Godliman Street, London EC4V 5BD

### Please tick if you would like to submit a poster

Contact [conferencecentre@rmh.nhs.uk](mailto:conferencecentre@rmh.nhs.uk) for details on how to submit. *(Prizes to be awarded at the end of Day 2)*

### Hotel Accommodation

To book your accommodation with Grange St. Paul's Hotel, London, please call, Hotel Reservations Department on **020 7074 1000** quoting reference **CNB123083**. *(This special discounted rate is subject to availability – early booking advised)*

Please note that accommodation agreements are between you and the Grange Hotels Group. The Royal Marsden NHS Foundation Trust will not be held responsible for issues in relation to any bookings with third parties. You are advised to ensure that you make yourself aware of the terms and conditions relating to your hotel booking.

## FOR ONLINE BOOKINGS

Visit [www.royalmarsden.nhs.uk/evolution](http://www.royalmarsden.nhs.uk/evolution)

**Alternatively** please complete details clearly in block capitals as this information is used to prepare event materials.

### Personal

Prof/Dr/Mr/Ms/Mrs/Miss Surname: \_\_\_\_\_

First Name: \_\_\_\_\_ Male/Female

Job Title: \_\_\_\_\_

Company: \_\_\_\_\_

Email: \_\_\_\_\_

Full postal address: (Please specify whether home or work )

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I enclose the sum of £250 / £300 by cheque made payable to:  
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If your employer has agreed to pay your fees and an invoice needs to be sent, it is essential that you give full details below of the contact name, department and full postal address. If any information is missing, your application will not be processed.

If your application form needs to be approved by another department, please ensure that it is processed and forwarded to us quickly. It is your own responsibility to ensure that your application is approved by your employer and forwarded to us.

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### Conference Booking Conditions

In order to be registered for the event, full payment of the registration fee must be made with your application, unless an organisation is paying on your behalf. All bookings will be confirmed by email, unless otherwise requested. Please contact us if you have not received confirmation within 5-7 days of submitting your booking.

Registrations cancelled 6 or more weeks before the event will be refunded 50% of the registration fees

Registrations cancelled less than 6 weeks before the event will not be eligible for a refund

### General

Special dietary/other requirements: \_\_\_\_\_

### How Did You Hear About The Event?

Please state: \_\_\_\_\_

### Applicant's Declaration

I agree to the terms and conditions above and confirm that payment for this event will be made in full before I attend. Please tick if you do not agree to your email address being used to advise you of forthcoming events which may be of interest.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Please return this form to the Conference Office, Education and Conference Centre, The Royal Marsden NHS Foundation Trust, Stewarts Grove, London, SW3 6JJ.

Email [conferencecentre@rmh.nhs.uk](mailto:conferencecentre@rmh.nhs.uk)

or Fax 020 7808 2334

For further information please call 020 7808 2921/2924

