

Dear Fellow Liverymen

Worshipful Company of Pattenmakers

**NASA Astronaut Lecture
at The Royal Society, Pall Mall**

Space: From Then to When



I am delighted to invite you and guests to attend the Pattenmakers Lecture being held on the 13th October 2015 at The Royal Society, Pall Mall, SW1Y 5AG.

The timing of the lecture is deliberate as it follows World Space Week, a global UN initiative to celebrate space exploration, space science and technology which started in 1999. Our lecture is being given by NASA astronaut Dr Roger Crouch, who, with two Space Shuttle flights under his belt, is not only an award winning scientist but a fascinating and engaging speaker on many scientific subjects and who has spoken in over 25 countries around the world. It is fitting that the lecture will be held in the Royal Society being the world wide renowned home of science.

The format for the evening is structured as:

- 6:30 to 7:00pm** Registration for lecture in the Wellcome Trust Lecture Hall.
- 7:00 to 7:30pm** Welcome drinks
- 7:30 to 8:25 pm** Dr Crouch will present on his experiences of becoming and being an astronaut, his thoughts on non-human flights, spin-off products and technologies and future space exploration including Mars missions.
- 8:25 to 8:30 pm** Amber Agee-DeHart, President of idoodlelearning inc will launch the 2016 Cubes in Space global design competition. This NASA sponsored, programme provides school children a no-cost opportunity to design and submit their experiments to a judging panel, with the winning experiments to be launched into space in June 2016.
- 8:30pm** Drinks reception
- 10:00pm** Carriages

The cost for this event is £50.00. Please note there are limited tickets so order early. The proceeds from this event are being used to provide a free lecture by Dr Crouch to 750 school children between the ages of 11 and 16 on the 9th October 2015. This is being held by kind permission of the City of London Boys School in their main hall (attendees must be registered to attend). The student lecture will be aimed at instilling perseverance in their studies, encouraging attendees interest in science, technology engineering and maths (STEM) as a course choice or even as a future career. Any remaining proceeds will be for the benefit of the Pattenmakers Company Charitable Trust (registered charity number 286312) which provides orthopaedic shoes predominantly to injured servicemen.

If you would like to attend, please complete the attached form, enclose your cheque and send to:

**Worshipful Company of Pattenmakers
c/o 3 Beeston Place
London SW1W 0JJ**

Or print, complete, scan and email to info@mpacgroup.co.uk
Sending your payment to bank account using your name as the reference



What We Will Hear About

“My dream to be an astronaut started when I was about 10 years old. After seeing the movie, “Journey to the Moon” I decided that during my lifetime, humans would go into space and eventually land on the moon and I wanted to be part of that exploration! Within 8 years the space race was started and US President Kennedy pledged that before the 1960’s was over, the US would put a man on the moon and return them safely to Earth. Suddenly my dream became a possibility.

As we all know life is not a straight path, with many obstacles to overcome perseverance was needed. Jump forward 35 years and I was finally on my way into space. Along the way I had done research and lead a science program aimed at maximizing the utilization of the low gravity space environment to carry out high quality research. Finally in 1997, I was lucky enough to get two spaceflights on the Space Shuttle within three months of each other!

Building on the lessons learned from the construction and use of the International Space Station as a research laboratory, improvements in space telescopes and more capable robotic rovers on the moon and Mars, the possibility of the human race leaving its planet of origin permanently is a reality lacking only the motivation by large portions of the population to support such a goal. As a corollary, development of capabilities to mine precious resources from space objects such as meteorites, Earth’s moon, or other planetary moons, development of a tourist industry for space travel and utilization of the low gravity environment as a research tool are all very real possibilities.”



Dr. Roger Crouch

- Payload Specialist on **STS-83** (April 4–8, 1997) and **STS-94** (July 1–17, 1997)
- Senior Scientist - International Space Station
- Senior Scientist - Office of Life and Microgravity Sciences, NASA-HQ
- Lead Scientist - Microgravity Space and Applications Division
- Program Scientist on **five** different Spacelab flights.
- Co-chair - Microgravity Science Working Groups between NASA and space agencies from the European Union, France, Germany, Japan, and Russia.
- Co-chair - International Microgravity Science Strategic Planning Group consisting of these space agencies plus Canada.
- Group leader and researcher, NASA Langley Research Center.
- Leader - research group investigating the effects of convection on semiconductor materials’ properties.
- Research in various techniques and types of semiconductor crystal growth, electric and optical properties of materials, electronic devices for remote sensing and flat panel displays, and heat shield protection for atmospheric reentry of space vehicles. This research resulted in the publication of over 40 technical paper and over 50 technical conference reports.
- Member of American Physical Society
- Numerous awards and patents



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LIVERY or COMPANY

We should like to attend the Lecture and Reception at the Royal Society on Tuesday 13th October 2015 and will be represented by:

NAME: _____

TITLE: _____

ADDITIONAL PAYING GUESTS

(If so desired)

NAME: _____

TITLE: _____

NAME: _____

TITLE: _____

NAME: _____

TITLE: _____

If you would like to attend, please complete this form, enclose your cheque and send to:

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London SW1W 0JJ

Or complete this form, scan and email to **info@mpacgroup.co.uk**
Sending your payment to bank account below using your name as the reference
HSBC, Sort Code 40-05-30
A/C 12348349

Please ensure we receive your request this form by Monday 6th October 2015