

# You Want it Darker? Here Comes The Light

Christopher Exley PhD FRSB

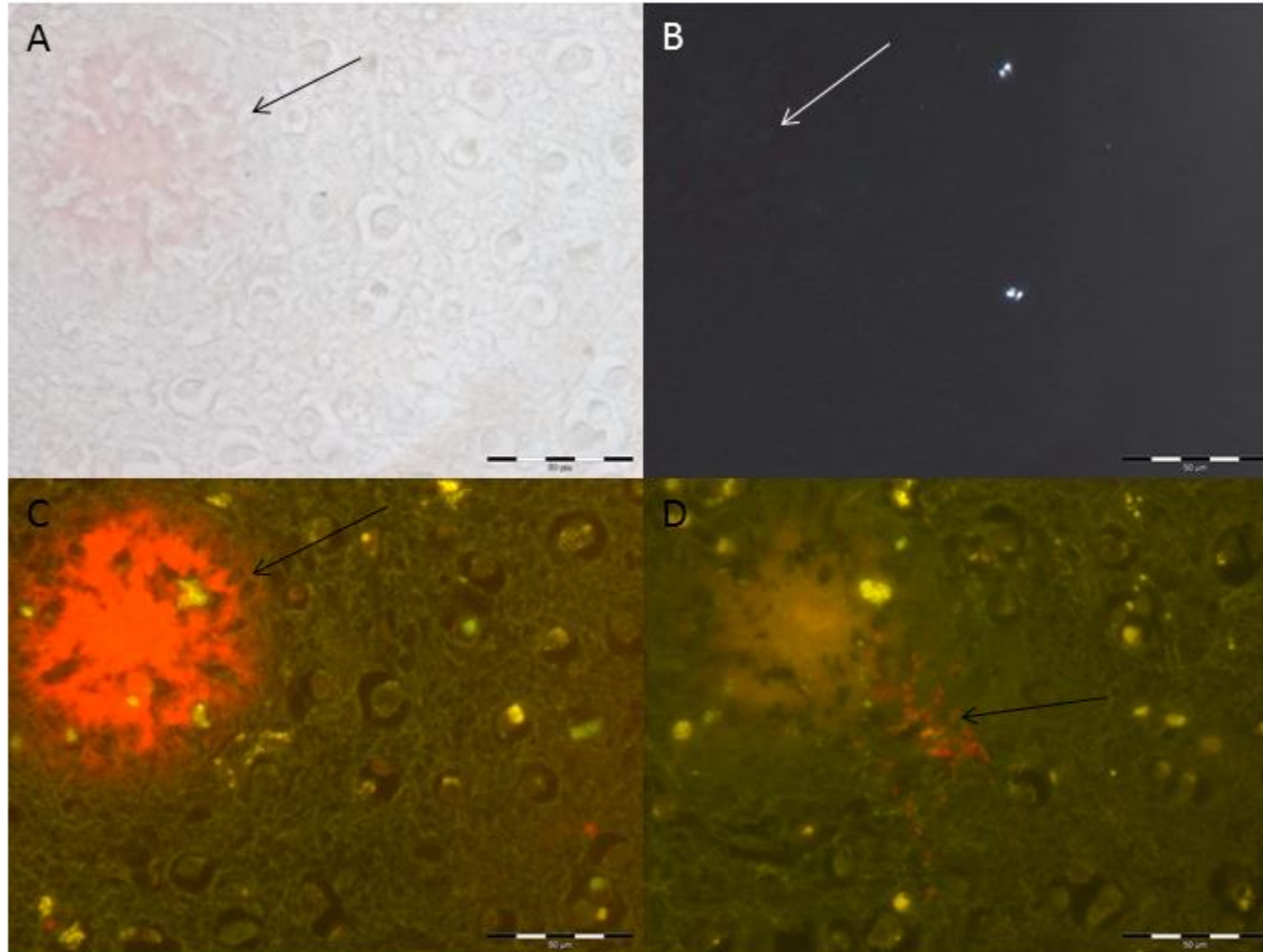
The Birchall Centre, Lennard-Jones Laboratories, Keele University, Keele, Staffordshire, ST5 5BG, UK.

[c.exley@keele.ac.uk](mailto:c.exley@keele.ac.uk)

<http://www.keele.ac.uk/aluminium/>

<https://www.hippocraticpost.com/?s=Exley>





Occipital Cortex

Mirza et al (submitted).

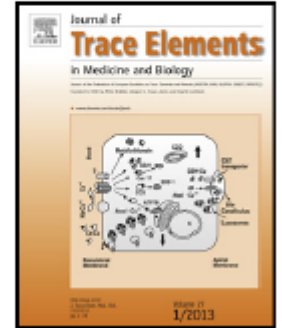
Achieving Optimal Health, Washington 2016



Contents lists available at [ScienceDirect](#)

## Journal of Trace Elements in Medicine and Biology

journal homepage: [www.elsevier.com/locate/jtemb](http://www.elsevier.com/locate/jtemb)



Toxicology

### Aluminium in brain tissue in familial Alzheimer's disease

Ambreen Mirza<sup>a</sup>, Andrew King<sup>b,c</sup>, Claire Troakes<sup>c</sup>, Christopher Exley<sup>a,\*</sup>

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<sup>b</sup> *Department Of Clinical Neuropathology, King's College Hospital, London, SE5 9RS, United Kingdom*

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<https://www.sciencedirect.com/science/article/pii/S0946672X16303777?via%3Dihub>

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# You Want it Darker?

Journal of Trace Elements in Medicine and Biology 46 (2018) 76–82

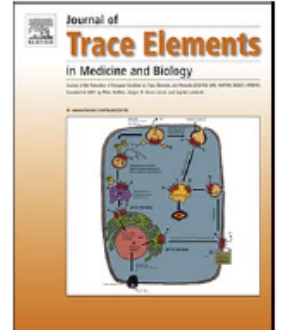


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Contents lists available at ScienceDirect

## Journal of Trace Elements in Medicine and Biology

journal homepage: [www.elsevier.com/locate/jtemb](http://www.elsevier.com/locate/jtemb)



## Aluminium in brain tissue in autism

Matthew Mold<sup>a</sup>, Dorcas Umar<sup>b</sup>, Andrew King<sup>c</sup>, Christopher Exley<sup>a,\*</sup>

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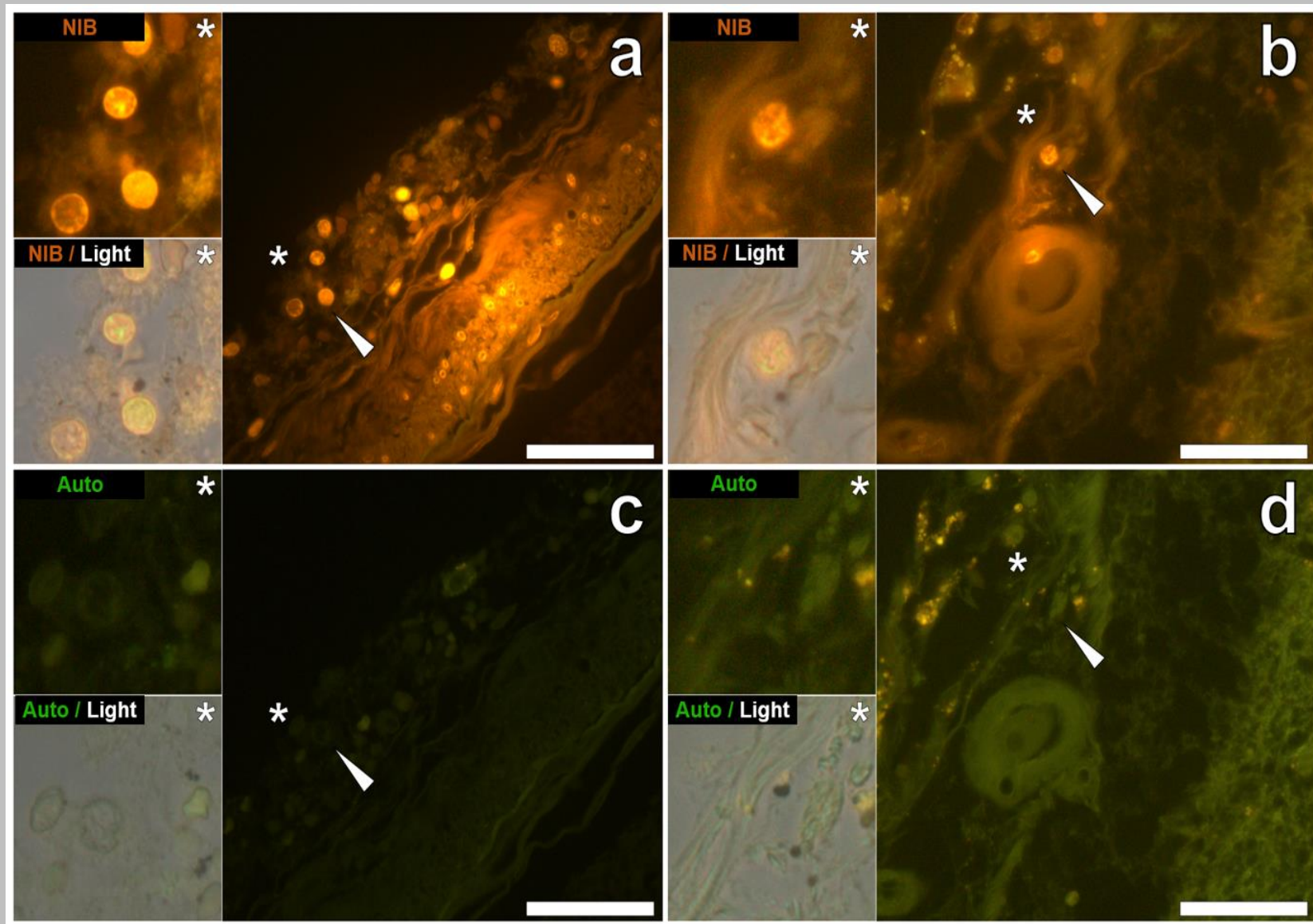
<https://www.sciencedirect.com/science/article/pii/S0946672X17308763>

Over 400000 Views on the Publisher's Website

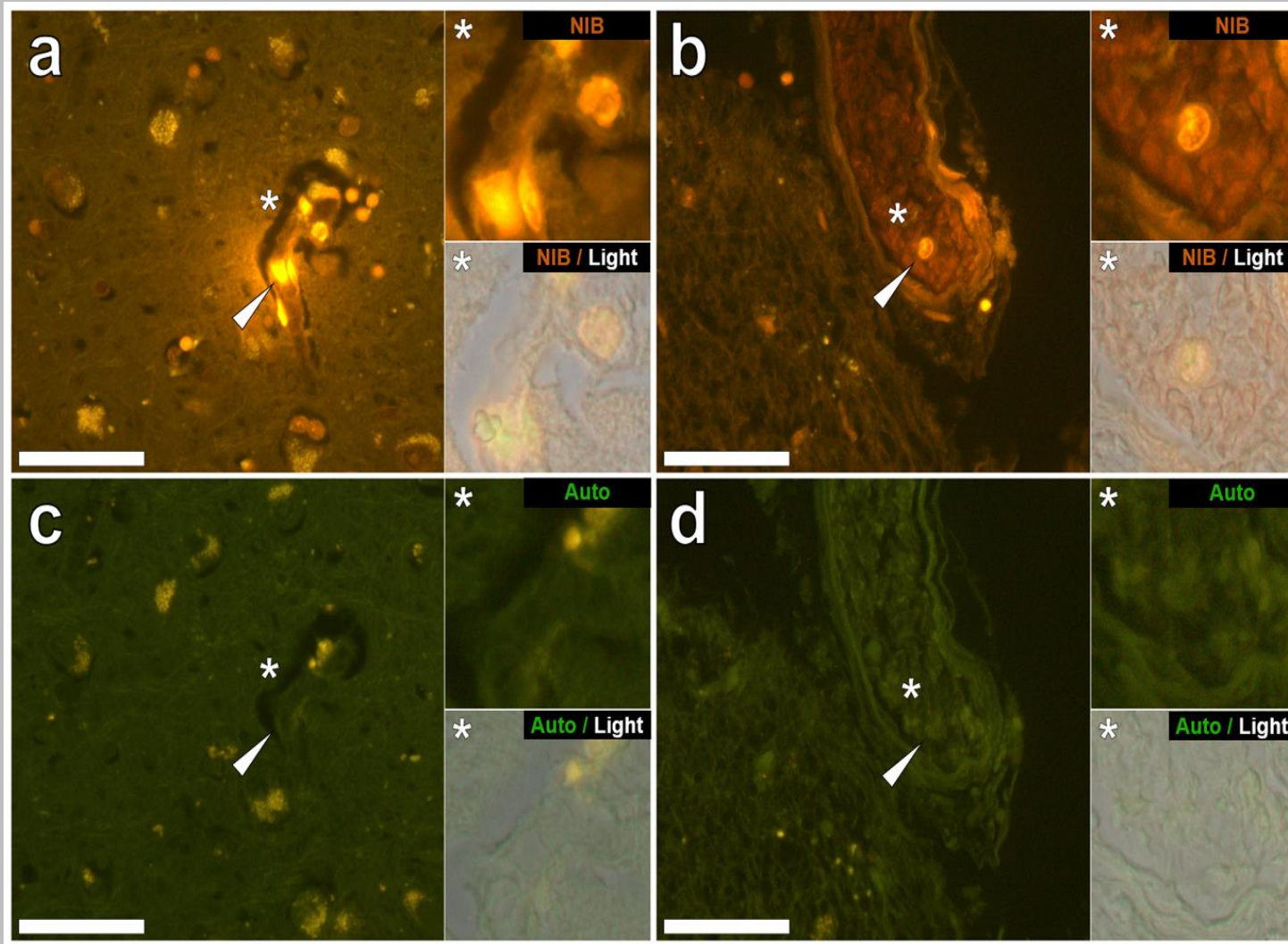
## You Want it Darker?

From the Abstract

These are some of the highest values for aluminium in human brain tissue yet recorded and one has to question why, for example, the aluminium content of the occipital lobe of a 15 year old boy would be 8.74 (11.59)  $\mu\text{g/g}$  dry wt.?



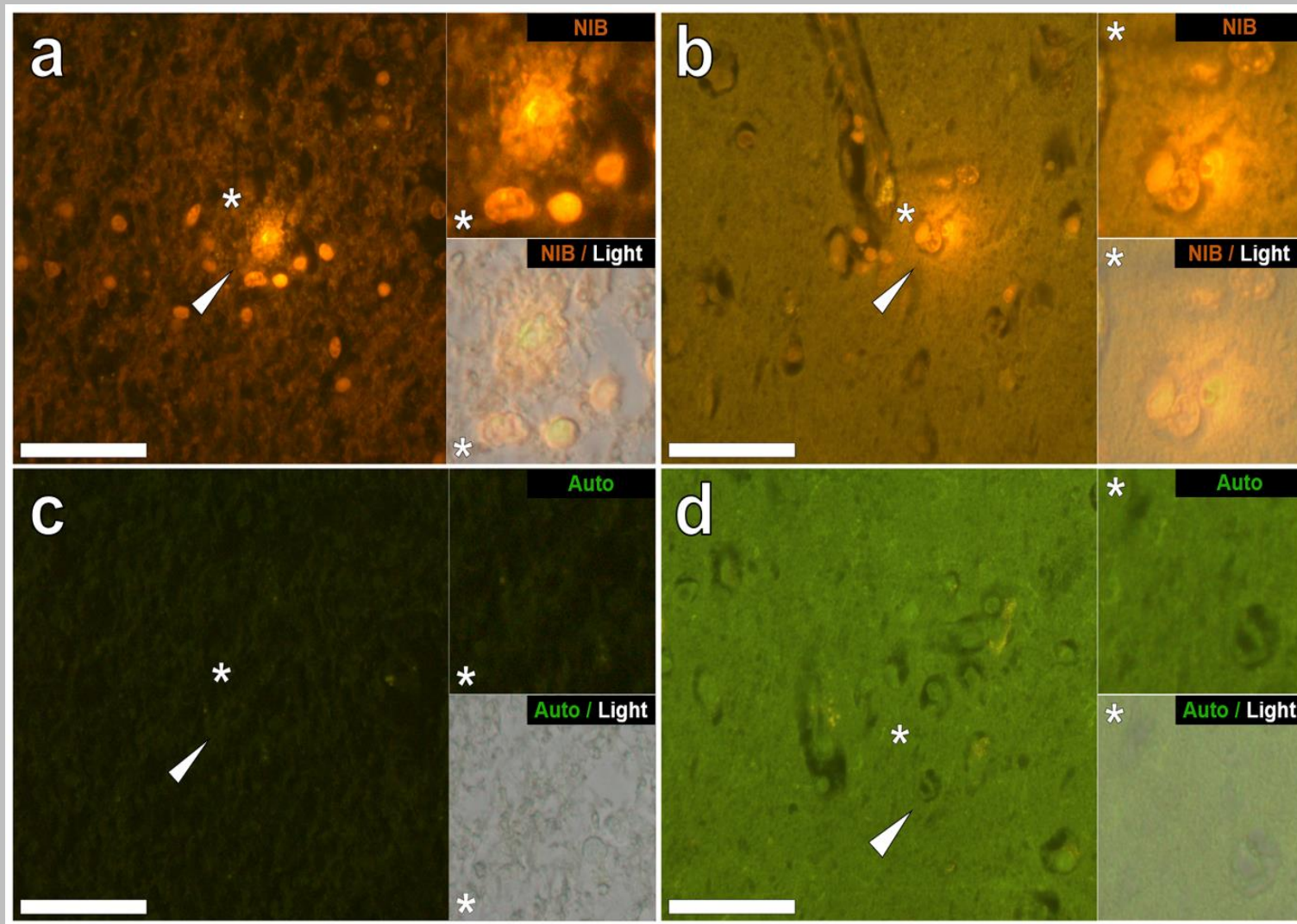
Intrameningeal lumogallion-reactive aluminium identified in the hippocampus (a & c) and frontal lobe (b & d) of a 50-year-old male donor diagnosed with autism.



Intravasculature lumogallion-reactive aluminium identified in the hippocampus (**a – d**) of a 50-year-old male donor diagnosed with autism.

<https://www.sciencedirect.com/science/article/pii/S0946672X17308763>





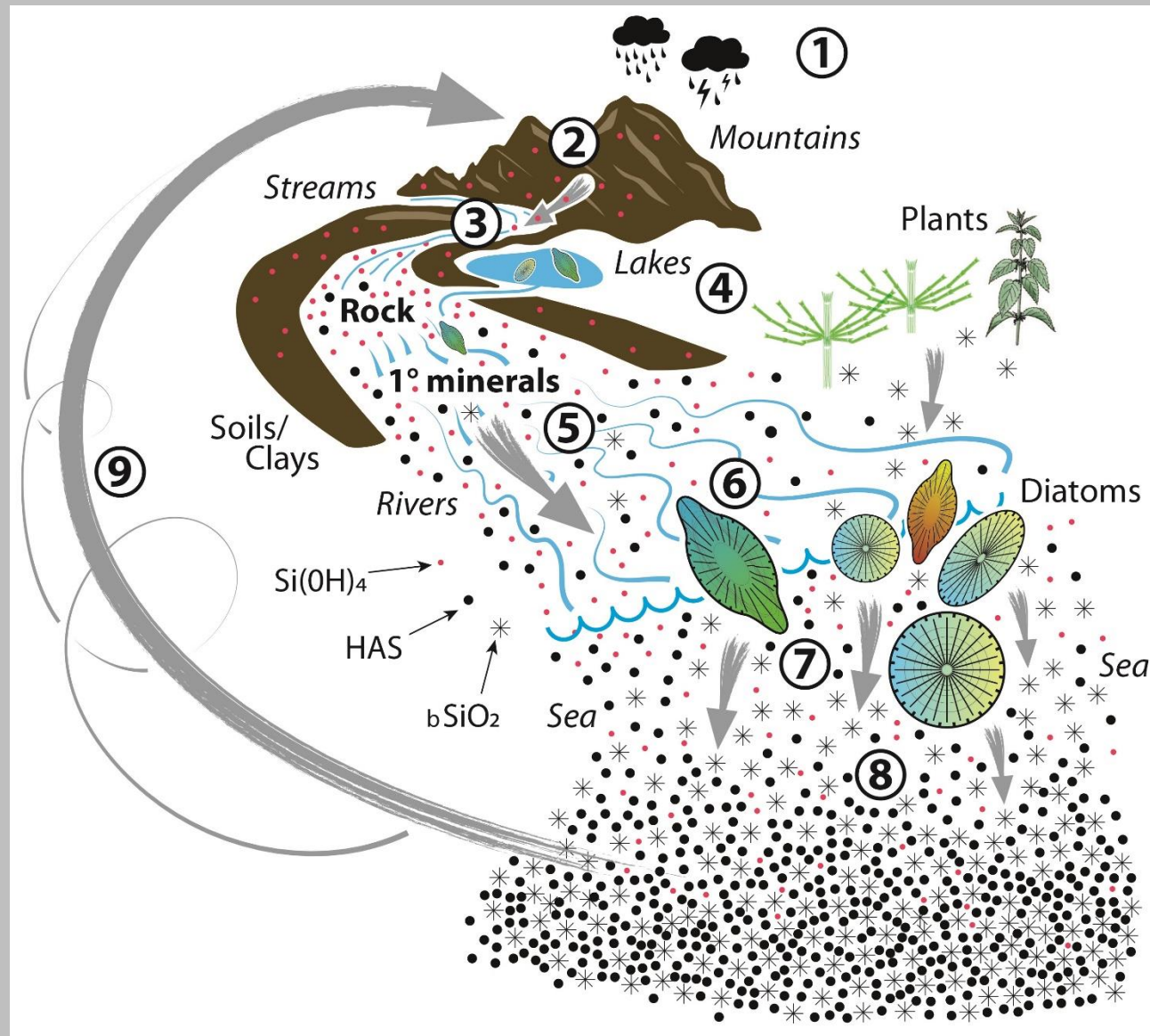
Lumogallion-reactive aluminium identified in the hippocampus (**a & c**) and parietal (**b & d**) lobe of a 15-year-old male donor diagnosed with autism.



# Here Comes The Light

## Nature's Silicon Cycle

The Clue to Earth's AOH Strategy!

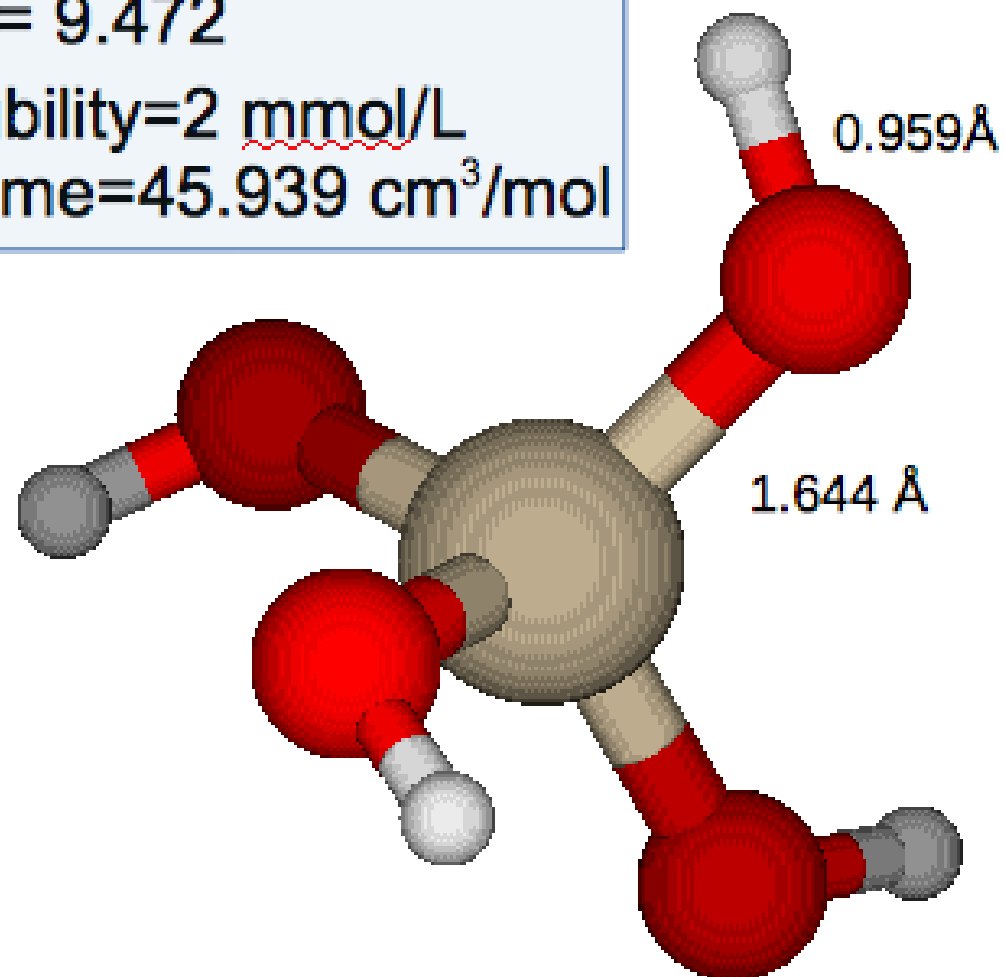


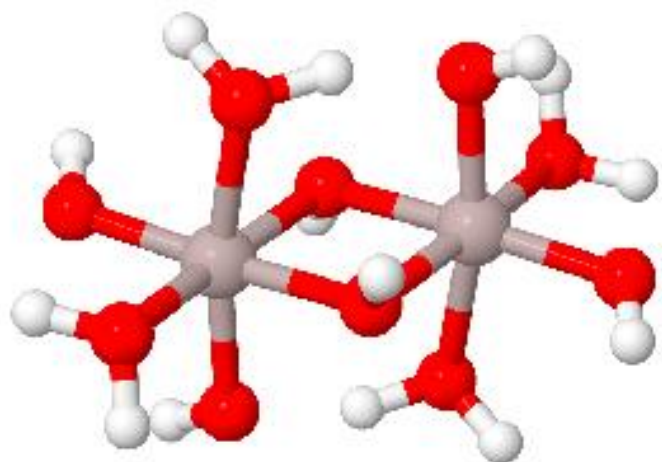
# Silicic Acid

$pK_a = 9.472$

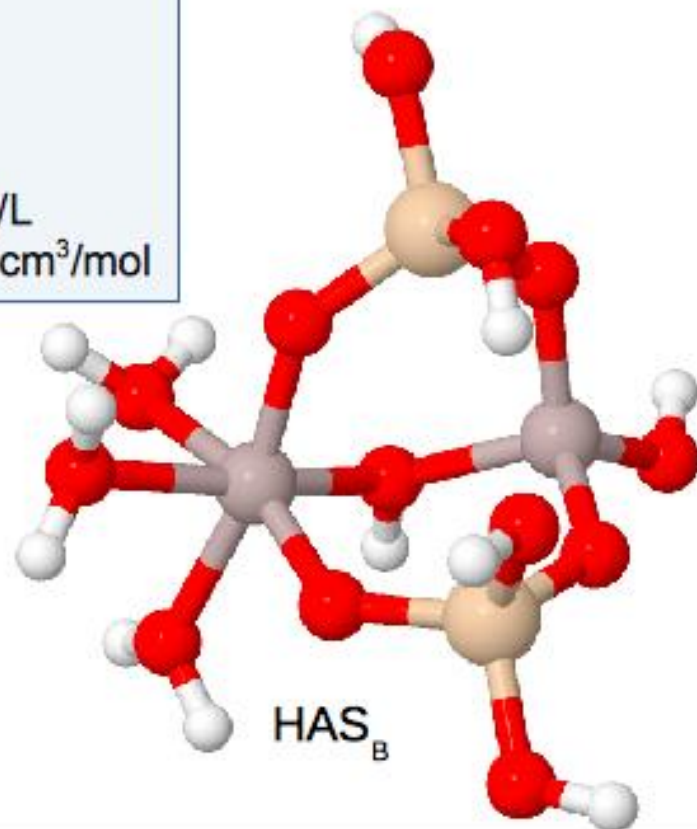
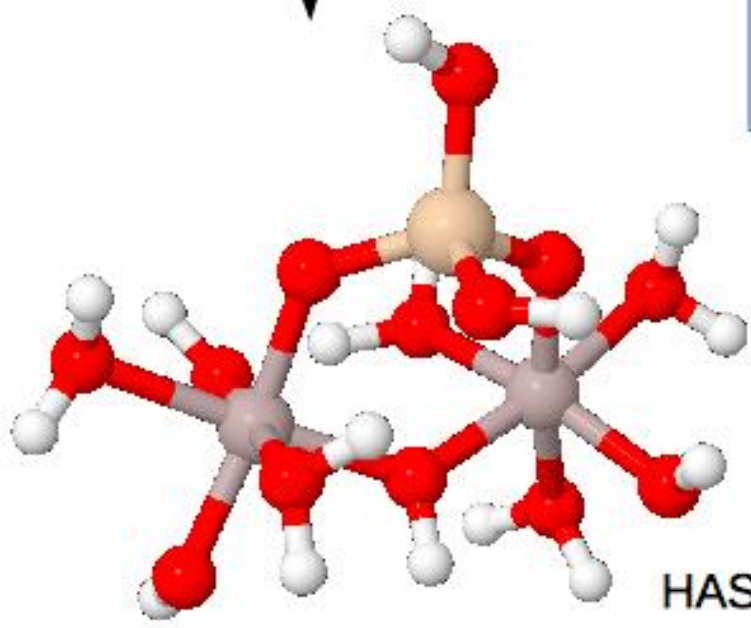
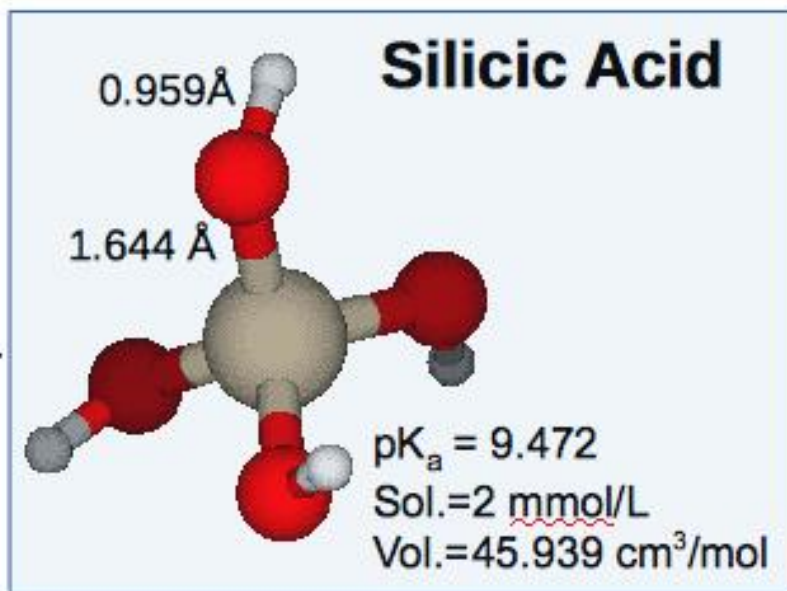
Solubility=2 mmol/L

Volume=45.939  $\text{cm}^3/\text{mol}$





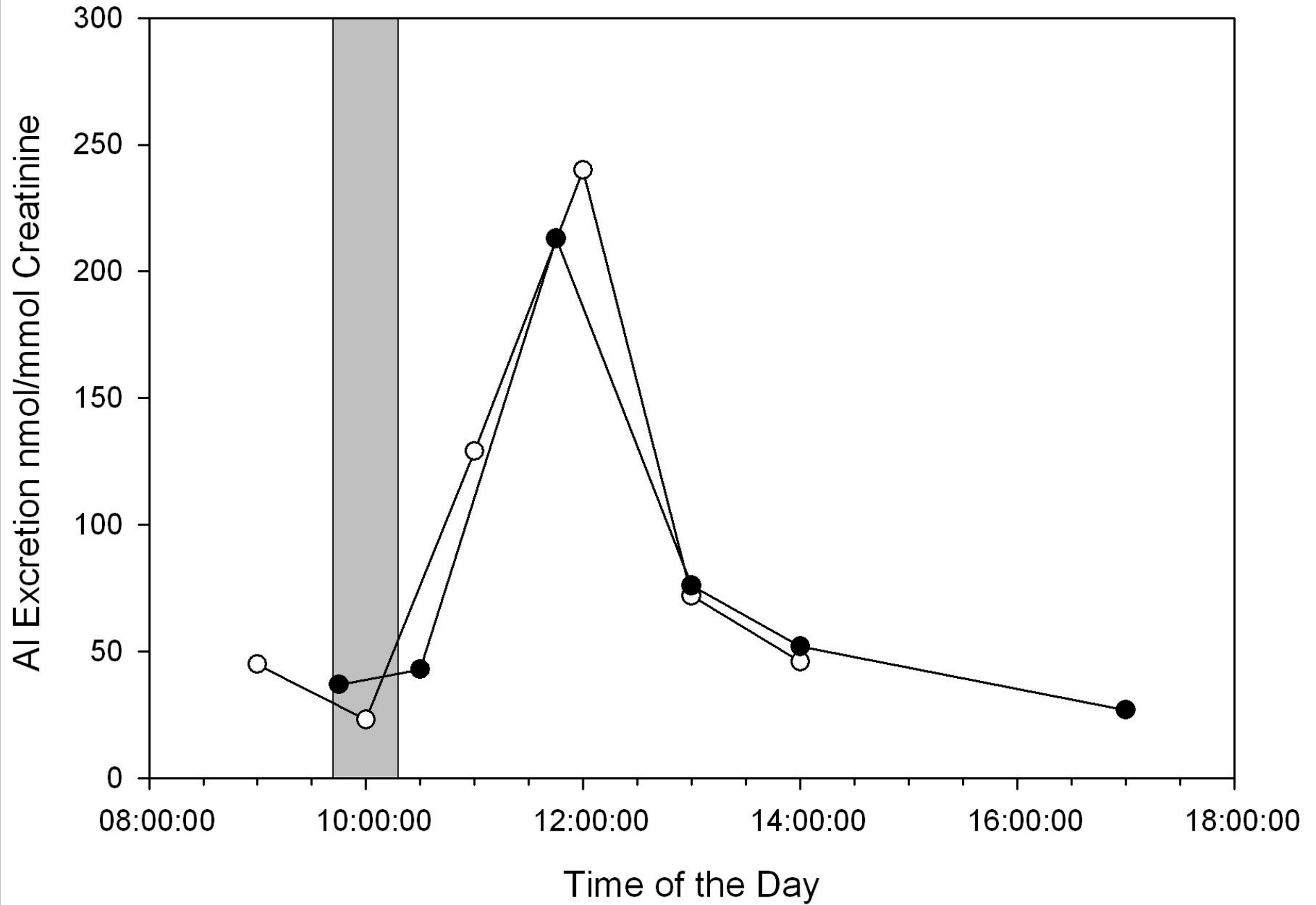
Aluminium Hydroxide





# SILICON/SILICA SUPPLEMENTS





# Non-invasive therapy to reduce the body burden of aluminium in Alzheimer's disease

Christopher Exley<sup>a,\*</sup>, Olga Korchazhkina<sup>b</sup>, Deborah Job<sup>c</sup>, Stanislav Strekopytov<sup>a</sup>,  
Anthony Polwart<sup>d</sup> and Peter Crome<sup>c,e</sup>

<sup>a</sup>*Birchall Centre for Inorganic Chemistry and Materials Science, Keele University, Staffordshire, UK*

<sup>b</sup>*Institute for Science and Technology in Medicine, Keele University, Staffordshire, UK*

<sup>c</sup>*Department of Gerontology, University Hospital of North Staffordshire, Staffordshire, UK*

<sup>d</sup>*Life Sciences, Keele University, Staffordshire, UK*

<sup>e</sup>*School of Medicine, Keele University, Staffordshire, UK*

The first 'test' (over only 5 days) of an 'aluminium hypothesis of Alzheimer's disease with a silicon-rich mineral water showed that silicon-rich mineral waters could be an effective and non-invasive method to lower the body burden of aluminium.



## The Second Test!

# Silicon-Rich Mineral Water as a Non-Invasive Test of the 'Aluminum Hypothesis' in Alzheimer's Disease

Samantha Davenward<sup>a</sup>, Peter Bentham<sup>b</sup>, Jan Wright<sup>b</sup>, Peter Crome<sup>c</sup>, Deborah Job<sup>c</sup>,  
Anthony Polwart<sup>d</sup> and Christopher Exley<sup>a,\*</sup>

<sup>a</sup>*The Birchall Centre, Lennard-Jones Laboratories, Keele University, Stoke-on-Trent, Staffordshire, UK*

<sup>b</sup>*Birmingham and Solihull Mental Health NHS Foundation Trust, The Barberry Centre, Birmingham, UK*

<sup>c</sup>*North Staffordshire Combined Healthcare NHS Trust, Harplands Hospital, Stoke-on-Trent, UK*

<sup>d</sup>*Life Sciences, Keele University, Stoke-on-Trent, Staffordshire, UK*

**We have provided preliminary evidence that over 12 weeks of silicon-rich mineral water therapy the body burden of aluminium fell significantly in individuals with Alzheimer's disease and, concomitantly, cognitive performance showed clinically relevant improvements in at least 3 out of 15 individuals.**



Contents lists available at ScienceDirect

EBioMedicine

journal homepage: [www.ebiomedicine.com](http://www.ebiomedicine.com)



Research Paper

# Urinary Excretion of Aluminium and Silicon in Secondary Progressive Multiple Sclerosis



Krista Jones<sup>a</sup>, Caroline Linhart<sup>b</sup>, Clive Hawkins<sup>c</sup>, Christopher Exley<sup>a,\*</sup>

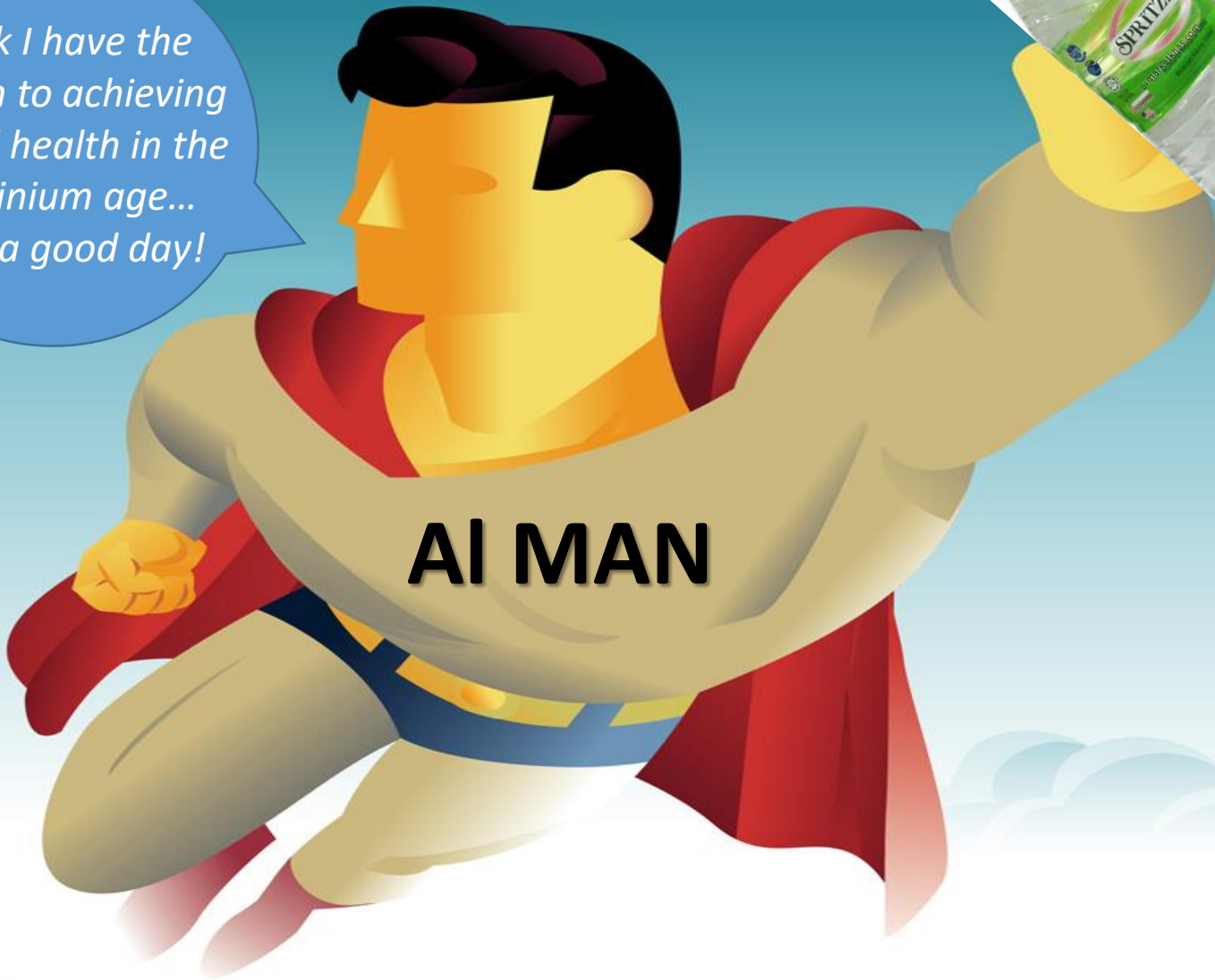
<sup>a</sup> *The Birchall Centre, Lennard-Jones Laboratories, Keele University, United Kingdom*

<sup>b</sup> *Department of Medical Statistics, Informatics and Health Economics, Medical University of Innsbruck, Austria*

<sup>c</sup> *Institute of Science and Technology in Medicine, Keele University, United Kingdom*

<https://www.sciencedirect.com/science/article/pii/S2352396417304280?via%3Dihub>

*I think I have the solution to achieving optimal health in the aluminium age...  
Have a good day!*



**AI MAN**



The Birchall Centre, Keele University and  
Centro de Investigación Científica de Yucatán



THE THIRTEENTH  
KEELE MEETING ON  
**Aluminium**

**Future Challenges in  
the Aluminium Age**

**23<sup>rd</sup>**

**27<sup>th</sup>**

March

**2019**

Hotel Uxmal Resort Maya  
Yucatán, México



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