

The New Perspectives Lecture: UK and European Gastroenterology Post-Brexit

Michael Manns

**President
United European Gastroenterology (UEG)**

Presentation by
Michael Manns

British Society of Gastroenterology (BSG) - 20 June 2017 – Manchester, UK

ACKNOWLEDGEMENTS

Jana Tenglerova, UEG Brussels

Sorika Berner-Alteneder, UEG Vienna

CONFLICT OF INTEREST

**I am a convinced and passionate
Gastroenterologist and European**

UNITED

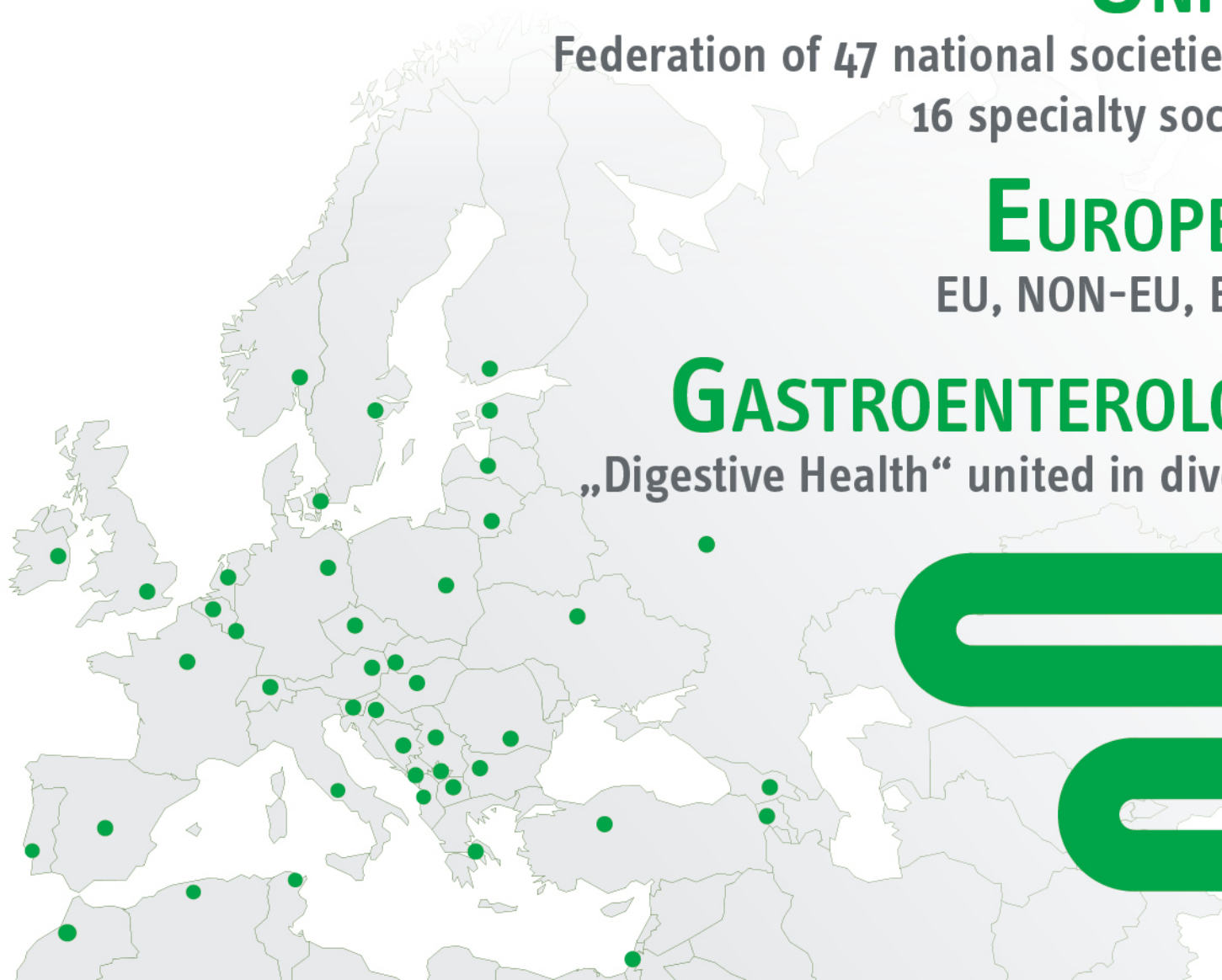
Federation of 47 national societies and
16 specialty societies

EUROPEAN

EU, NON-EU, EX-EU

GASTROENTEROLOGY

„Digestive Health“ united in diversity



Abstract Submission UEG Week – Top Ten Countries

Prominent UEG Officers from UK:

Michael Farthing, Past President

John Atherton, Secretary General

Arthur Kaser, Chair Research Board

and many more

How to work with UEG? How can I get involved?

UEG looks for GI professionals that want to work with us

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Vice President

Secretary General

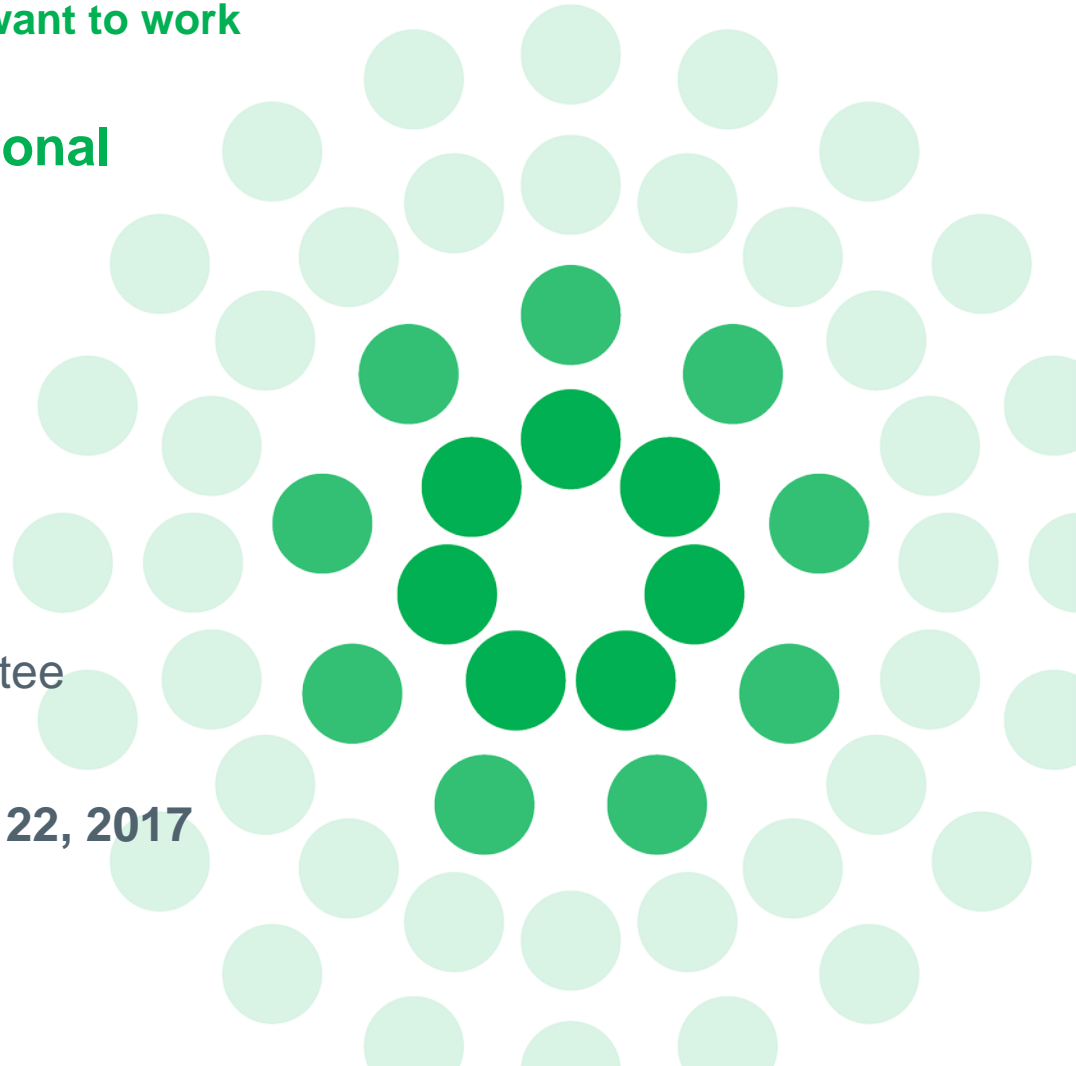
Chair Education Committee

Independent Councillor

Member National Societies Committee

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BiomedAlliance



Alliance for Biomedical Research in Europe

a unique initiative representing 20 leading research-oriented medical societies that include more than 250,000 researchers across Europe.



The Scientific Panel for Health

Karin Sipido, MD PhD

Chair of the Scientific Panel for Health



SPH: Who are we ?



Martin John Buxton (UK) Emeritus Professor, Health Economics Professor,
Brunel University

Stephen Holgate (UK) Medical Research Council; Clinical Research Professor
of Immunopharmacology, Southampton University



The Scientific Panel for Health: The Mandate

- Complimentary to existing bodies
- To provide foresight and overall vision, strategy
- Identify bottlenecks to innovation and propose solutions
- Give advice on EU research
- Fight for a European Institute of Health: EIH

The Lancet, 2016

http://ec.europa.eu/research/health/policy-issues-horizon2020_en.html

European law makers face numerous healthcare related challenges

Funding for Biomedical Research of all Research Funding:

16 % in US, 8 % in EU

- Shrinking workforce
- **Increasing disease burden of mostly preventable diseases**
- Competitive landscape
- Constantly lagging behind established research leaders (USA, Japan, South Korea)
- Loosing ground to newcomers (China, India)
- **Stagnating investments in research 2002-2007**

DER SPIEGEL

Nr. 24
11.6.2016



King's Liver Unit Golden Jubilee: 17 JUNE 2016

M_H

Medizinische Hochschule
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UK and European Gastroenterology Post-Brexit


■ Brexit facts

- 23 June 2016: 52 % of British people voted for Brexit
- 13 July 2016: Theresa May appointed PM: „Brexit means Brexit“
- 29 March 2017: PM May triggered article 50 of Lisbon Treaty of EU
- 08 June 2017: PM May and conservative party loose parliament majority
- 19 June 2017: negotiations with EU have started
- 01 April 2019: UK to leave EU

UK and European Gastroenterology Post-Brexit

- **UK and European Biomedical Research status quo**
- **Challenges and dangers for Gastroenterology Post-Brexit**
- **Vision UK and European Gastroenterology Post-Brexit**

The 2016 Journal Impact Factors are here !



	Full Journal Title	Total Cites	Journal Impact Factor ▼	Eigenfactor Score
1	GASTROENTEROLOGY	70,320	18.392	0.12385
2	GUT	38,889	16.658	0.07016
3	Nature Reviews Gastroenterology & Hepatology	5,699	13.678	0.02348
4	HEPATOLOGY	62,304	13.246	0.10950
5	JOURNAL OF HEPATOLOGY	33,566	12.486	0.08384
6	AMERICAN JOURNAL OF GASTROENTEROLOGY	32,177	9.566	0.04956
7	Liver Cancer	565	7.854	0.00155
8	Clinical Gastroenterology and Hepatology	14,353	7.398	0.04203
9	ALIMENTARY PHARMACOLOGY & THERAPEUTICS	18,259	7.286	0.03474
10	GASTROINTESTINAL ENDOSCOPY	22,589	6.501	0.03306

Published June 2017

THE IMPACT OF COLLABORATION: THE VALUE OF UK MEDICAL RESEARCH TO EU SCIENCE AND HEALTH

Research by
**Peter Varnai, Maike Rentel, Anoushka Davé,
Marika De Scalzi, Wia Timmerman,
Cristina Rosemberg-Montes, Paul Simmonds**
Technopolis Group (May 2017)



Study co-funded by The Academy of Medical Sciences (AMS), Arthritis Research UK, the Association of Medical Research Charities (AMRC), the British Heart Foundation (BHF), Cancer Research UK (CRUK), the Medical Research Council (MRC), MQ: Transforming Mental Health and Wellcome.



acmedsci.ac.uk



cruk.org



arthritisresearchuk.org



mrc.ac.uk

Where is BSG ?



amrc.org.uk



mqmentalhealth.org



bhf.org.uk



wellcome.ac.uk

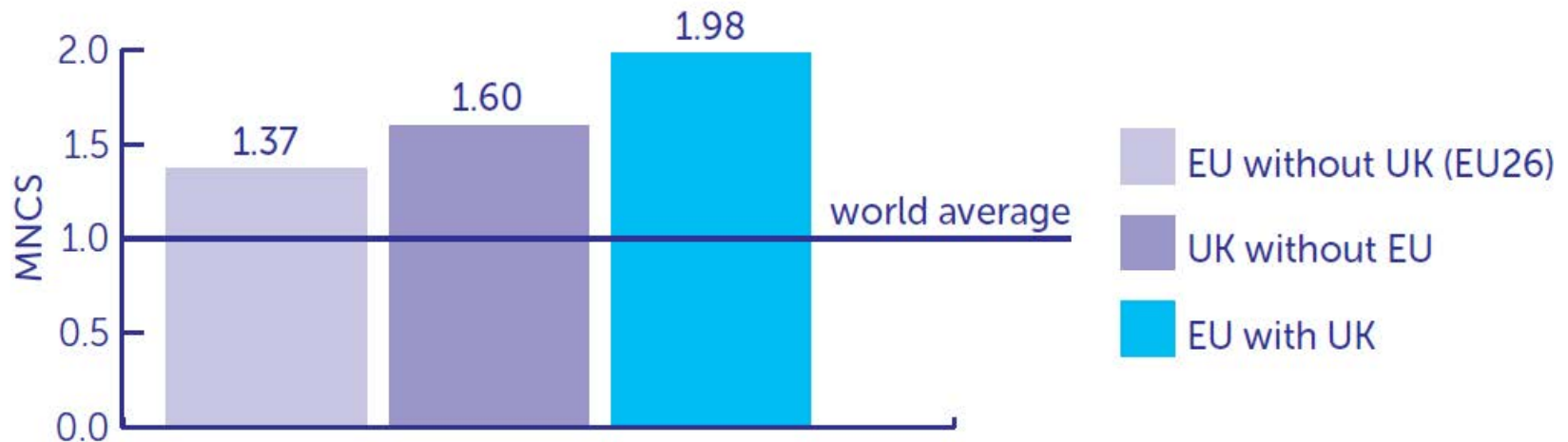
The Value of UK Medical Research to EU Science and Health

1. Contributions to collaborations, communication, advisory bodies, networks and policies
2. Participation in pan-EU clinical trials, providing notable leadership for rare diseases and paediatric clinical trials (e.g ERN)
3. Co-ordination and hosting of some of Europe's unique large-scale infrastructures for medical research (e.g. EMBL)
4. Development of new therapies and medical technologies that benefit EU patients, backed by a thriving pharmaceutical and biotechnology sector (e.g private research funding, EMA)
5. Training early career researchers from across the EU, to develop their skills and careers

THE IMPACT OF COLLABORATION:

The value of UK Medical Research to EU Science and Health

Mean Normalised Citation Scores (MNCS) for medical and health research publications



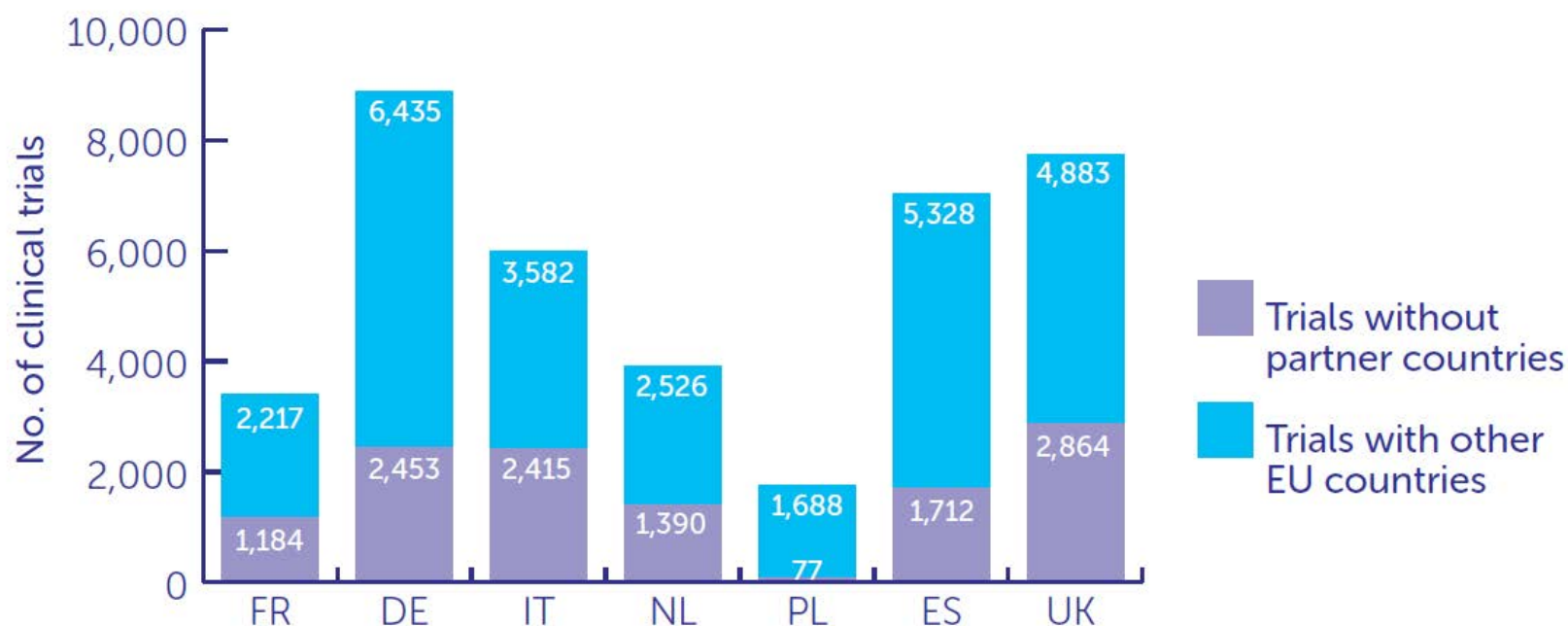
Source: Data analysis CWTS, Leiden University; Data source: Web of Science core collection
Clarivate Analytics

Research by Technology group, May 2017,
Study co-funded by AMS, Arthritis Research UK, AMRC, BHF, CRUK, MRC, MQ

THE IMPACT OF COLLABORATION:

The value of UK Medical Research to EU Science and Health

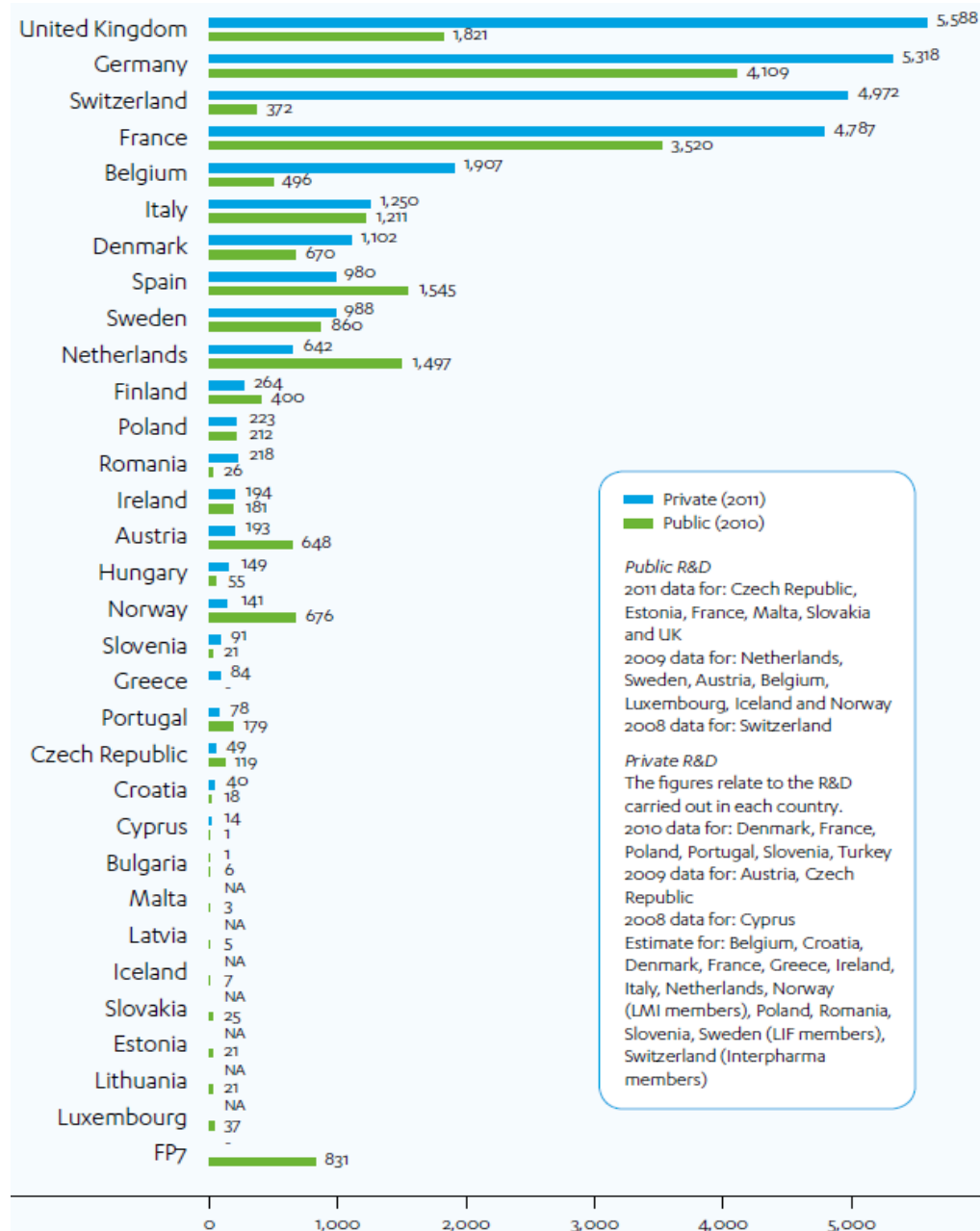
Number of clinical trials conducted by country with or without collaboration with other EU countries



Source: Technopolis Group; European Clinical Trials Database

Research by Technology group, May 2017,
Study co-funded by AMS, Arthritis Research UK, AMRC, BHF, CRUK, MRC, MQ

Strong UK pharmaceutical and biotechnology industry research funding



THE IMPACT OF COLLABORATION:

The value of UK Medical Research to EU Science and Health

Top 10 organisations in terms of Marie Skłodowska-Curie action fellowships (FP7, 2007-2013)

Institution	Country	Number of MSCA fellowships
Centre National de la Recherche Scientifique	France	514
University of Cambridge	UK	300
University of Oxford	UK	299
Imperial College London	UK	261
Max Planck Society	Germany	250
Consejo Superior de Investigaciones Científicas	Spain	250
University College London	UK	177
ETH Zürich	Switzerland	163
Copenhagen University	Denmark	163
University of Birmingham	UK	143

Source: DG EAC, Nov 2014, presented in Avramov, D. (2015) FP7 ex-post evaluation PEOPLE Specific Programme (2007-2013): Rationale, implementation and achievements, Annex 1, Table 1

Research by Technology group, May 2017,

Study co-funded by AMS, Arthritis Research UK, AMRC, BHF, CRUK, MRC, MQ

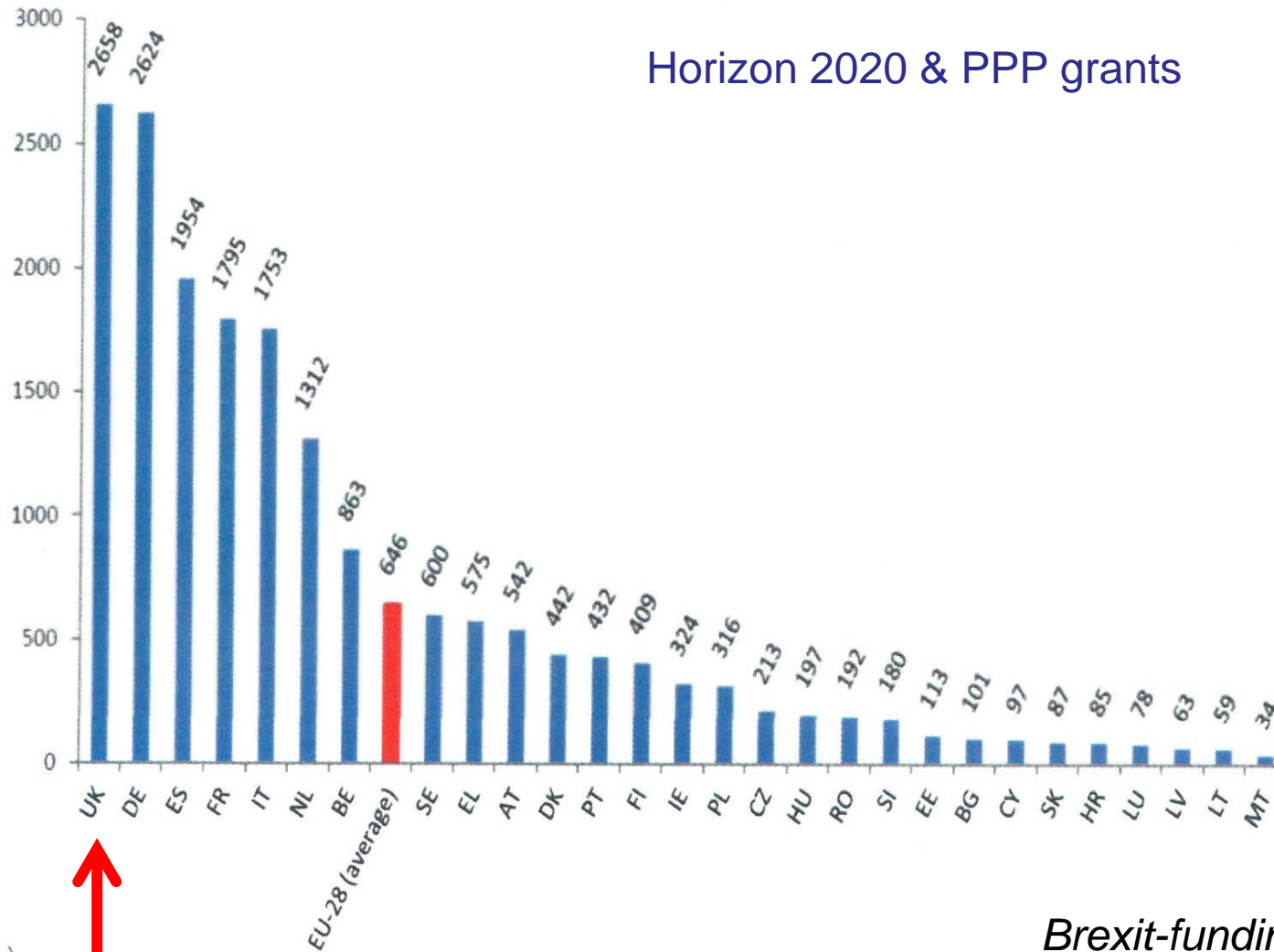
Pre Brexit Situation: HORIZON 2020

- Horizon 2020 €75 bn für period 2014-2020
- UK: No 1 sign up participants and No 2 received budgets
- UK: 5428 participants received €2.6 bn, 1058 SME received €400 mio
- UK: 13.43 % of all EU applications, 14.8 % success rate

www.Brexit-funding.com

EU Member States' participations in grants signed before 1 December 2015

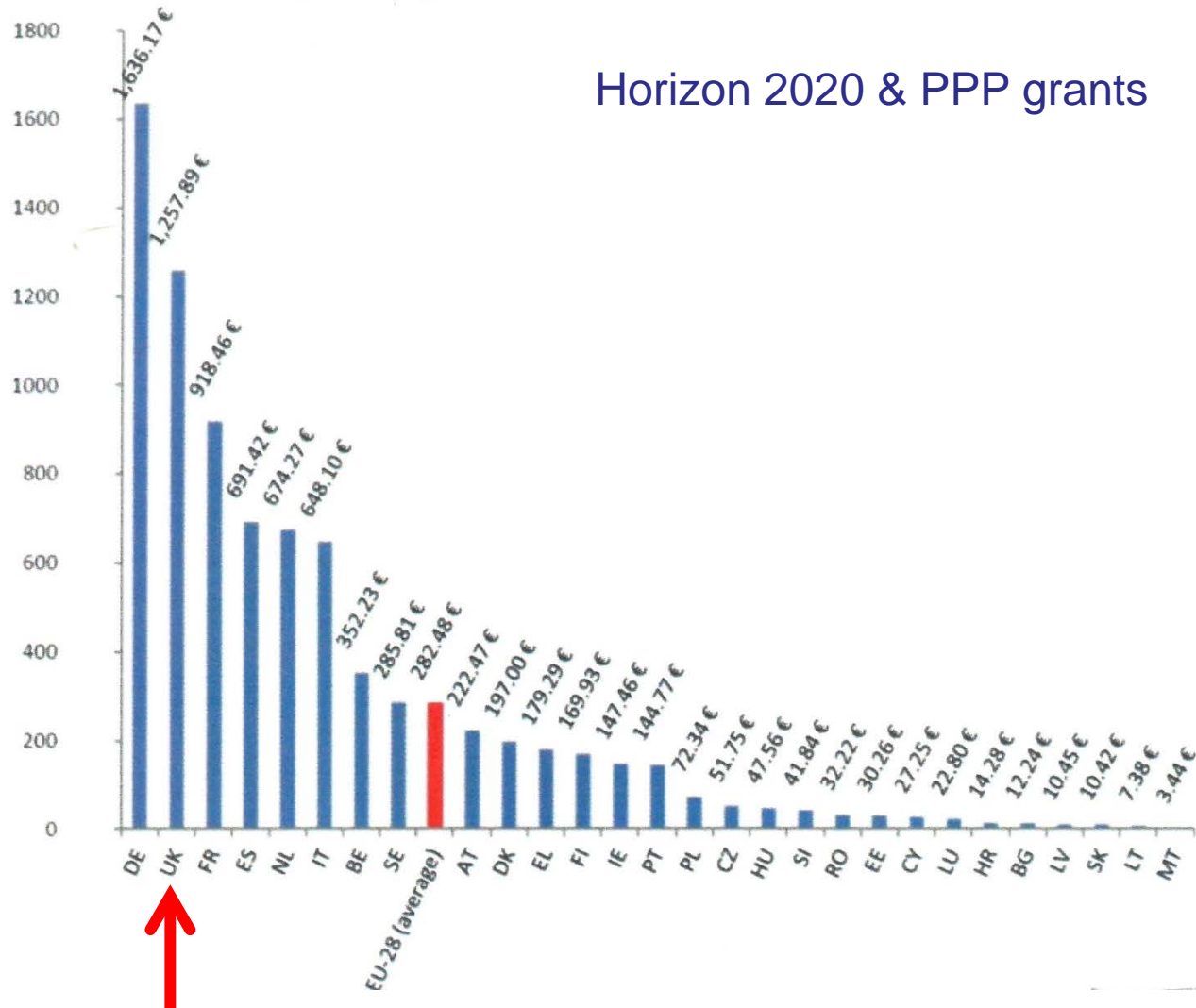
Horizon 2020 & PPP grants



Brexit-funding.com

EU contribution to grants signed before 1 December 2015 by EU Member States

Horizon 2020 & PPP grants



Brexit-funding.com

Is Brexit also a goodbye to science and research cooperation?

Written by Paul Rübzig on 5 May 2017 in Opinion

Opinion

Science and research are essential motors of prosperity for the EU, and the UK's research sector has a lot to lose following Brexit, warns Paul Rübzig.



Paul Rübzig | Photo credit: European Parliament audiovisual

UK and European Gastroenterology Post-Brexit

- We now recruit many of our best researchers from continental Europe, including younger ones who have obtained EU grants and have chosen to move with them here (1)
- 16 % of all UK university academics come from the EU
- EU academics are equally important in the core subject areas that are vital to UK long-term economic health.
- Areas like physics (26%), chemical engineering (25%), biosciences (22%), chemistry (21%) and IT (20%) are all heavily reliant on European talent (2)

<https://www.theguardian.com/politics/2016/mar/10/brexit-disaster-for-uk-science-say-scientists-stephen-hawking>

<http://blogs.lse.ac.uk/brexit/2017/01/26/no-longer-welcome-the-eu-academics-in-britain-told-to-make-arrangements-to-leave/>

UK and European Gastroenterology Post-Brexit

- **Brexit will have an impact on:**
 - Trade between UK and EU
 - Free movement of persons
 - Access to EU funding
 - International cooperation
 - Industry
 - Governments
 - Research Institutes

UK and European Gastroenterology Post-Brexit

- **Brexit will have an impact on:**
 - Trade between UK and EU
 - Free movement of persons
 - Access to EU funding
 - International cooperation
 - Industry
 - Governments
 - Research Institutes
- **Innovations, R & D, and new technologies !!!!!!!!!**

UK and European Gastroenterology Post-Brexit

„As no country has ever invoked article 50 of the Lisbon treaty it is uncertain how the Brexit process will affect EU funding practice“

Hard Brexit versus Soft Brexit

UK and European Gastroenterology Post-Brexit

„As no country has ever invoked article 50 of the Lisbon treaty it is uncertain how the Brexit process will affect EU funding practice“

Hard Brexit versus Soft Brexit

Single Market or not ?

UK and European Gastroenterology Post-Brexit

PM Theresa May:

„Taking back control over immigration is more important than retaining membership of Single Market or Custom Union“

UK and European Gastroenterology Post-Brexit

Option 1: **Hard Brexit** – UK leaves single market, control of migration, no contribution to EU budget, no application of EU law, UK negotiates trade deals

Option 2: **Soft Brexit** – “Norwegian” model (European Economic Area or similar) – access to single market, freedom of movement for EU citizens, contribution to EU budget, most EU law applies

Option 3: Options in between these two extremes?

UK and European Gastroenterology Post-Brexit

The Swiss Model:

- From 2017 Switzerland has full associated status
- Full access to Horizon 2020
- Free movement of EU people

UK and European Gastroenterology Post-Brexit

- **Post - Brexit: Short Term**
 - No impact on already funded projects
 - EU law continues to apply to and within the UK until UK actually leaves
 - Includes UK legal entities to participate and receive Horizon 2020 funding



Britons 'bumped off' EU medical research grant applications, MPs told

Committee hears Brexit prompting move by European colleagues, while UK position would be threatened by no access to European funding

Lisa O'Carroll Brexit correspondent

Tuesday 21 February 2017 19.56 GMT

theguardian 21 February 2017

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UK and European Gastroenterology Post-Brexit

- **Post - Brexit: Long Term**

- All depends on negotiated Brexit deal
- COSME
- COST
- ERASMUS
- European Regional Development Fund (ERDF)
- European Social Fund (ESF)
- The 3rd Health Programme
- Horizon 2020

Brexit – anticipated implications

- Cut off from European networks and funding (e.g. Horizon 2020)
- UK universities are heavily dependent on academics from the EU (over 16% of UK university academics come from the EU)
- Difficulties for intricate networks of collaboration and exchange
- **Participation to European Reference Networks: ERN**



ERN on hepatological diseases (ERN RARE-LIVER)



Rare liver diseases can cause progressive liver injury leading to fibrosis and cirrhosis. The complications of cirrhosis can lead to death and, in many cases, the only effective treatment is liver transplantation. Fatigue, pruritus in cholestatic conditions, and pain and abdominal swelling in cystic conditions significantly affect quality of life.

In paediatric patients, delay in diagnosis, and failure to thrive and attain developmental milestones are additional key factors, along with the challenge of transition in care through adolescence.

ERN RARE-LIVER addresses three disease themes: autoimmune liver disease, metabolic biliary atresia and related liver disease, and structural liver disease. The network will, for the first time in liver disease, fully integrate adult and paediatric care with a focus on the needs of transitional populations and the implications for families with a genetic diagnosis.

The development of up-to-date guidelines is a priority. Care guidelines will be



*The network will, for the first time
in liver disease, fully integrate
adult and paediatric care.*

implemented in collaboration with the European Association for the Study of the Liver (EASL) and the European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN). This will be supported by the standardisation of key diagnostic and prognostic tests.

Clinician awareness of rare liver disorders and equitable access to rapidly evolving treatment options are major challenges to be addressed.

NETWORK COORDINATOR

Professor David Jones
*The Newcastle upon Tyne Hospitals
NHS Foundation Trust, United Kingdom*

**Network coordinator:
Professor David Jones, Newcastle**



European
Reference
Networks

No.	Clinical Centres
1	The Newcastle upon Tyne Hospitals NHS Foundation Trust
2	University Hospitals Saint-Luc
3	University Hospital Ghent
4	University Hospital Leuven
5	Copenhagen University Hospital Rigshospitalet
6	Assistance Publique-Hôpitaux de Paris, Hôpital Bicêtre
7	Assistance Publique-Hôpitaux de Paris, Hôpital Saint-Antoine
8	Assistance Publique-Hôpitaux de Paris, Hôpital Beaujon
9	Medizinische Hochschule Hannover
10	Universitätsklinikum Tübingen
11	Uniklinik RWTH Aachen
12	Universitätsklinikum Hamburg-Eppendorf
13	Universitätsklinikum des Saarlandes
14	AO di Padova
15	Ospedale S. Gerardo di Monza
16	Ospedale S. Paolo di Milano
17	Academic Medical Center Amsterdam
18	University Medical Center Groningen
19	Radboud University Medical Center Nijmegen
20	SPCSK, Banacha, Warszawa
21	Centro Hospitalar e Universitário de Coimbra, EPE
22	Hospital Clínic i Provincial de Barcelona
23	Hospital Universitario La Paz
24	Karolinska Universitetssjukhuset
25	Sahlgrenska Universitetssjukhuset
26	Birmingham Children's Hospital NHS Foundation Trust
27	Royal Free London NHS Foundation Trust
28	University Hospitals Birmingham NHS Foundation Trust



Representative in the ERN Board of Member States
overview, UK breakdown→ **UK centers are well-
represented in the European Reacher Networks**, in
total more than 100 members

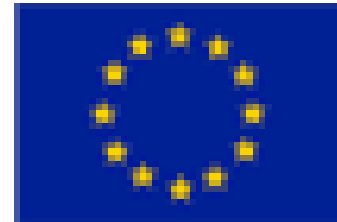
- **1 -2 MEMBER:** Belfast City Hospital, Belfast Health and Social Care Trust, Cardiff and Vale University Health Board, Derby Teaching Hospitals NHS Foundation, King's College Hospital NHS Foundation Trust, Moorfields ERN EYE Hospital NHS Foundation Trust, NHS Greater Glasgow and Clyde Board, NHS Tayside, Ninewells Hospitals and Medical School Dundee, Papworth Hospital NHS Foundation Trust, Queen Elizabeth University Hospitals Glasgow, Royal Brompton & Harefield NHS Foundation Trust, Royal Infirmary of Edinburgh - NHS Lothian, Royal National Orthopedic Hospital NHS Trust, Sheffield Children's NHS Foundation Trust, The Christie NHS Foundation Trust, The Royal Marsden NHS Foundation Trust, University Hospitals Coventry & Warwickshire NHS Trust, University of Dundee
- **3-4 MEMBERS:** Alder Hey Children's NHS Foundation Trust, St George's University Hospitals NHS Foundation Trust:, The Leeds Teaching Hospitals NHS Trust, University Hospital Southampton NHS Foundation Trust, University Hospitals Bristol NHS Foundation Trust, Royal Free London NHS Foundation Trust, Sheffield Teaching Hospitals NHS Foundation Trust, University Hospitals Birmingham NHS Foundation Trust,
- **5-6 MEMBERS:** Barts Health NHS Trust, The Newcastle upon Tyne Hospitals NHS Foundation Trust, University College London Hospitals NHS Foundation Trust, Guy's and St Thomas' NHS Foundation Trust
- **7-8 MEMBERS:** Oxford University Hospitals NHS Foundation Trust, Birmingham Children's Hospital NHS Foundation Trust
- **9 MEMBERS:** Central Manchester University Hospitals NHS Foundation Trust
- **13 MEMBERS:** Great Ormond Street Hospital for Children NHS Foundation Trust

Brexit – anticipated implications

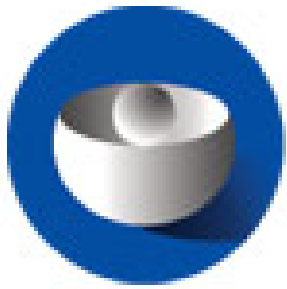
- Biomedical Research: UK and EU medical research are interlinked and vital for each other
- Mobility of scientists
- **Access to clinical trials**



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH



www.ema.europa.eu



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

The European Medicines Agency (EMA) is a decentralised

Human- and Veterinary Medicine: One Health

ensuring that all medicines available on the EU market are safe, effective and of high quality.

EMA serves a market of over 500 million people living in the EU.

European Parliament Calls for Rapid Relocation of EMA Headquarters

Posted 06 April 2017 By [Zachary Brennan](#)



Final decision on the new location of EMA likely in October 2017

The European Parliament on Wednesday called for an agreement to be reached “as quickly as possible” to relocate the headquarters of the European Medicines Agency (EMA) following the UK’s decision to exit the EU.



Reality Check: What might Brexit mean for medicines and clinical trials?

By Hugh Pym
Health editor

22 June 2016 | EU Referendum





INDEPENDENT

ews InFact



INDY/PULSE

BREXIT: ACCESS TO POTENTIALLY LIFE-SAVING CLINICAL TRIALS 'AT RISK' FOR 600,000 PATIENTS

The Independent 17 February 2017

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Access to Clinical Trials Post-Brexit

- The new EU Clinical Trials Regulations (EU No 536/2014) , which the UK helped to draw up, aims to streamline the application process for clinical trials through a single approval system for all 28 countries.
- The new EU regulations are set to make it significantly easier for drug companies to test pioneering new treatments in EU countries.
- It is unclear what will happen in the UK; it may become more complicated to run a trial in the UK, with a population of around 60 million, than in the whole EU with a population of 500 million.



Royal College
of Physicians

Setting higher standards

Brexit: What does it mean for medical research?



Research stats in brief:

Funding:

UK is a net beneficiary, most successful securing funding

Contributing to world-leading medical research:

UK is one of the leaders in Europe in clinical trials

Access to new drug:

MHRA provides expertise to EMA

MHRA leads 43 % of licence requests

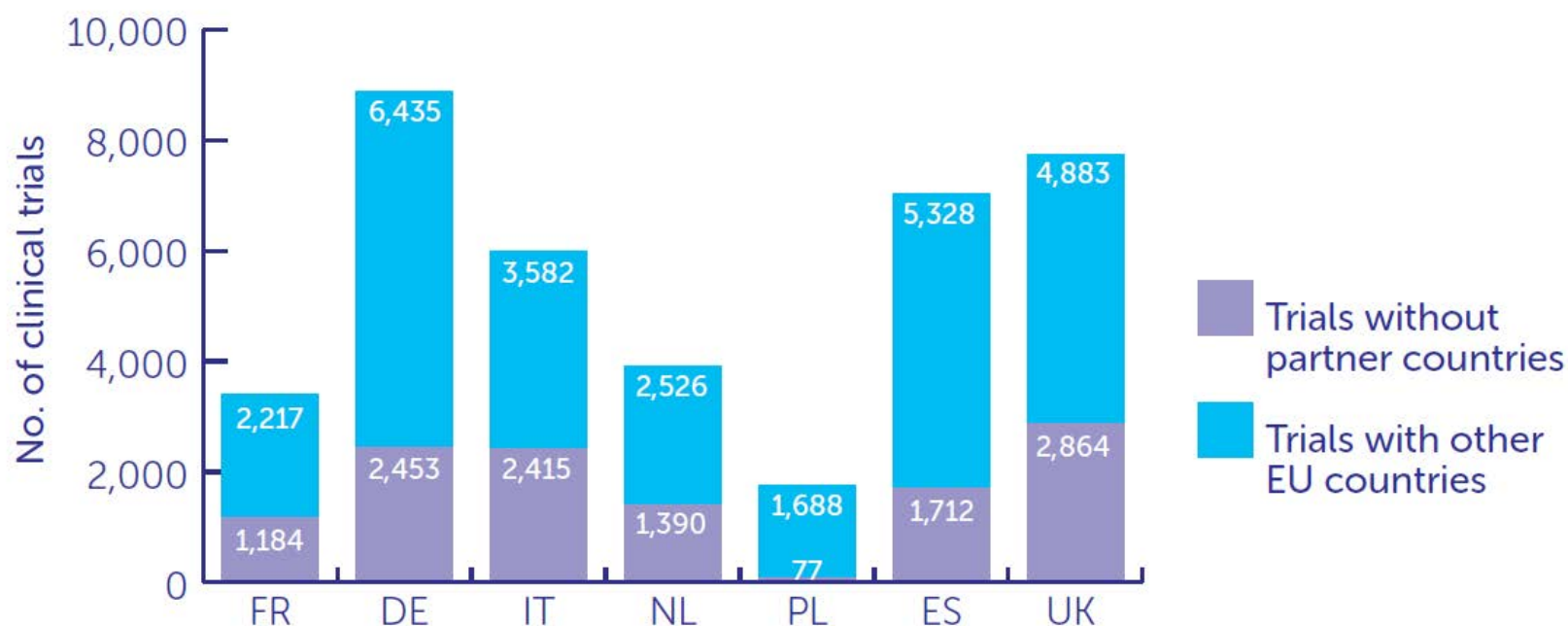


- 1. UK should negotiate continued access to funding**
- 2. UK's exit must not impact patients' participation in high quality research**
- 3. MHRA should continue to collaborate with EMA**
- 4. The UK government must clarify how adoption of EU regulations will impact on UK in order to reduce uncertainty and confusion**

THE IMPACT OF COLLABORATION:

The value of UK Medical Research to EU Science and Health

Number of clinical trials conducted by country with or without collaboration with other EU countries



Source: Technopolis Group; European Clinical Trials Database

Research by Technology group, May 2017,
Study co-funded by AMS, Arthritis Research UK, AMRC, BHF, CRUK, MRC, MQ

UK and European Gastroenterology Post-Brexit

- **Time matters**
- **Uncertainty is poison**

UK and European Gastroenterology Post-Brexit





**Brexit-Flüchtlinge (refugees)
Welcome to Germany !**

So viele Briten wie noch nie haben die deutsche Staatsbürgerschaft erlangt - ein Plus von 361 Prozent.

<https://daily.spiegel.de/news/einbuengerung-ansturm-der-briten-a-12420>

Example of successful UK German collaboration



The voice of science must be loud and clear in Brexit negotiations

Stephen Curry

As Theresa May prepares to announce a 'clean Brexit', researchers must provide government, parliament and the country with a clear picture of the risks facing negotiators



THE GUARDIAN 17 Januar 2017

UK and European Gastroenterology Post-Brexit

VISION and MISSION

- The scientific community of Europe has to stand up and fight for the future
- Biomedical Research and Health do not respect borders
- International collaboration and networking is a must
- For everybody in biomedical research
- and for our patients
- Digestive Health must be at the forefront of this movement
- With UEG as its umbrella

25th ueg week

advancing science, linking people

Barcelona, Spain

October 28 – November 1, 2017

Europe's Largest Gastroenterology Congress
World-Renowned Experts
Postgraduate Teaching Programme
Clinical Trials Revisited
Live Endoscopy
Hands-On Training
Therapy Updates
Advances in Clinical GI & Hepatology
Translational/Basic Science
Guidelines in Clinical Practice
Innovative Poster Formats
Live Broadcasting
Hotspot Controversial Debates
High Audience Interaction

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