European Quality In Preclinical Data

Results

Project Information

EQIPD

Grant agreement ID: 777364

Project website

DOI
10.3030/777364

Project closed

EC signature date
18 August 2017

Start date
1 October 2017

End date
30 September 2021

Funded under
SOCIETAL CHALLENGES - Health, demographic change and well-being

Total cost
€ 9 360 691,93

EU contribution
€ 4 495 523,00

Coordinated by
THE UNIVERSITY OF EDINBURGH
United Kingdom

CORDIS provides links to public deliverables and publications of HORIZON projects.

Links to deliverables and publications from FP7 projects, as well as links to some specific result types such as dataset and software, are dynamically retrieved from OpenAIRE.

Deliverables

Websites, patent fillings, videos etc. (4)

Final press release

Final press release with summary on the general project progress and main findings will be published

First quarterly electronic bulletins online

Publication of the first quarterly electronic bulletin with information on the project progress and first results

Release of project website public and internal part, communication package (logo, flyer, social media announcement

Corporate design eg logo PPT layout flyer and public and internal part of EQIPD website set up to disseminate results to the public

First press release

The first EQIPD press release with general information focusing on the aims of the project as well as the outcomes from the first project meeting will be published

Documents, reports (12)

Obtain ethical approval for cross-site validation studies and ring testing

All sites involved in the animal experiments will obtain ethical approval for their experiments

Report factors identified by historical data of published data

A report will be generated that describes the experimental design factors identified from the systematic review of published academic data that affect outcomes

Report on factors that underlie the robustness and generalisability of commonly used assays

A report of the prevalence and impact of factors related to the robustness and generalisability of commonly used assays derived from the analyses of data from members of the consortium of published academic studies

Report on validated guiding principles for robustness and data quality in preclinical Neuroscience and Safety research

Based on the outcome of the harmonisation experiments a report will be generated to provide guiding principles for optimal study design and experimentation

Outcome report from cross site validation

An outcome report on stage 1 of the crosssite validation study localization stage will be generated by the sites involved in the experiments on the basis of the generated data This will involve data summaries statistical analyses and conclusions

Outcome report from harmonized testing

An outcome report on stage 2 of the crosssite validation study harmonisation stage will be generated by the sites involved in the experiments on the basis of the generated data This will involve data summaries statistical analyses and conclusions

Evaluation of existing training modules

Generation of a list of existing training modules on keyprinciples for preclinical robustness and quality including an evaluation of each module against 1 the scope of EQIPD as determined by WPs 2 3 4 5 and 6 and 2 our predefined set of User Specification Requirements USR

With input from WPs 2 and 3 develop harmonized protocols for cross validation testing

Based on input from WPs 2 and 3 the local experimental protocols will be updated in order to perform stage 2 of the crosssite validation studies eg harmonisation

Data sharing procedures beyond EQIPD

A legally valid Data Deposition agreement will be developed to ensure that data depositors have control over whether or not their data can be made public before or after the end of this consortium

Final version of the framework of key principles and criteria for guiding the design, conduct and analysis of preclinical efficacy and safety research

The framework will be reevaluated and refined with the conclusions of the prospective crosssite validation studies performed by WP23 at a second consensus meeting A final guidance will be agreed and then published A process for continuous improvement of the guidance will be agreed

Final version of quality assurance system ready for implementation in industry and academia in non-regulated research

Readytouse set of recommendations addressing the needs of research organizations of different types with the integrated risk assessment and tiered implementation tools

Outcome report from Ring testing

An outcome report on stage 3 of the crosssite validation study Ring testing stage will be generated by the sites involved in the experiments on the basis of the

generated data This will involve data summaries statistical analyses and conclusions

Other (3)

1st Technical diagram of EQIPD-DWH

A diagram of the EQIPDDWH solution to house all different database structures required for WPs 2 and 4 with appropriate capacity and user rights

Comprehensive, engaging, selection of training materials on scientific quality, hosted on a web-based platform

A Learning Environment has been selected and installed and existing training modules or those newly developed have been collated in the Education section of this Learning Environment utilizing a collection of links to various training modules and have undergone alpha and beta testing

Structure and first incentives for electronic community enabling social learning, hosted on a web-based platform

The social learning Exposure section of the learning environment is populated and live for use including eg electronic bulletins links to existing discussion groups Facebook Twitter LinkedIn

Demonstrators, pilots, prototypes (1)

Quality reporting module in research software (prototype)

Specifications and a working example of an information exchange protocol will be established to enable errorless and fully transparent communication between office study design assistants electronic lab journals and labbased research software

Open Research Data Pilot (1)

Data inclusion protocol

A transparent protocol for unbiased inclusion of experimental paradigms and data sets required for WPs 2 and 4An ontology for the description of in vivo experiments such as these including quality aspects and working alongside other groups sharing the same ambition and develop a template for the depositing of

such work in open access fora such as figshare Our data will be deposited using the template devised

Publications

Peer reviewed articles (13)

Introduction to the EQIPD quality system
Author(s): Anton Bespalov, René Bernard, Anja Gilis, Björn Gerlach, Javier Guillén, Vincent Castagné, Isabel A Lefevre, Fiona Ducrey, Lee Monk, Sandrine Bongiovanni, Bruce Altevogt, María Arroyo-Araujo, Lior Bikovski, Natasja de Bruin, Esmeralda Castaños-Vélez, Alexander Dityatev, Christoph H Emmerich, Raafat Fares, Chantelle Ferland-Beckham, Christelle Froger-Colléaux, Valerie Gailus-Durner, Sabine
Published in: eLife, Issue 10, 2021, ISSN 2050-084X
Publisher: eLife Sciences Publications
DOI: 10.7554/elife.63294

Reproducibility of animal research in light of biological variation
Author(s): Bernhard Voelkl, Naomi S. Altman, Anders Forsman, Wolfgang Forstmeier, Jessica Gurevitch, Ivana Jaric, Natasha A. Karp, Martien J. Kas, Holger Schielzeth, Tom Van de Casteele, Hanno Würbel
Published in: Nature Reviews Neuroscience, Issue 21/7, 2020, Page(s) 384-393, ISSN 1471-003X
Publisher: Nature Publishing Group
DOI: 10.1038/s41583-020-0313-3

Choice of y-axis can mislead readers
Author(s): Betül R. Erdogan, Jan Vollert, Martin C. Michel
Published in: Naunyn-Schmiedeberg's Arch Pharmacol, Issue 393, 2020, Page(s) 1769-1772, ISSN 1432-1912
Publisher: Springer
DOI: 10.1007/s00210-020-01926-x

Protocol for a systematic review of guidelines for rigour in the design, conduct and analysis of biomedical experiments involving laboratory animals
Author(s): Jan Vollert, Esther Schenker, Malcolm Macleod, Anton Bespalov, Hanno Wuerbel, Martin Christian Michel, Ulrich Dirnagl, Heidrun Potschka, Kimberley E Wever, Thomas Steckler, Bruce Altevogt, Andrew S C Rice
Published in: BMJ Open Science, Issue 2/1, 2018, Page(s) e000004, ISSN

2398-8703
Publisher: BMJ
DOI: 10.1136/bmjos-2018-000004

European Quality in Preclinical Data (EQIPD): Een breed consortium voor het verbeteren van de kwaliteit van proefdieronderzoek.
Author(s): Steckler, T., Macleod, M., Kas, M. J. H., Gilis, A., & Wever, K. E.
Published in: Biotechniek, Issue 57 (2), 2018, Page(s) 18-23, ISSN 0166-6207
Publisher: Stichting Proefdierkundige Informatie

Commentary on the BJP 's new statistical reporting guidelines
Author(s): Harvey J Motulsky, Martin C Michel
Published in: British Journal of Pharmacology, Issue 175/18, 2018, Page(s) 3636-3637, ISSN 0007-1188
Publisher: Wiley-Blackwell
DOI: 10.1111/bph.14441

Normalization of organ bath contraction data for tissue specimen size: does one approach fit all?
Author(s): Betul R. Erdogan, Irem Karaomerlioglu, Zeynep E. Yesilyurt, Nihal Ozturk, A. Elif Muderrisoglu, Martin C. Michel, Ebru Arioglu-Inan
Published in: Naunyn-Schmiedeberg's Archives of Pharmacology, Issue 393/2, 2020, Page(s) 243-251, ISSN 0028-1298
Publisher: Springer Verlag
DOI: 10.1007/s00210-019-01727-x

Do overactive bladder symptoms and their treatment-associated changes exhibit a normal distribution? Implications for analysis and reporting
Author(s): Marjan Amiri, Sandra Murgas, Andreas Stang, Martin C. Michel
Published in: Neurourology and Urodynamics, Issue 39/2, 2019, Page(s) 754-761, ISSN 0733-2467
Publisher: John Wiley & Sons Inc.
DOI: 10.1002/nau.24275

Be positive about negatives–recommendations for the publication of negative (or null) results
Author(s): Anton Bespalov, Thomas Steckler, Phil Skolnick
Published in: European Neuropsychopharmacology, Issue 29/12, 2019, Page(s) 1312-1320, ISSN 0924-977X
Publisher: Elsevier BV
DOI: 10.1016/j.euroneuro.2019.10.007

New Author Guidelines for Displaying Data and Reporting Data Analysis and Statistical Methods in Experimental Biology
Author(s): Martin C. Michel, T.J. Murphy, Harvey J. Motulsky
Published in: Molecular Pharmacology, Issue 97/1, 2019, Page(s) 49-60, ISSN

0026-895X
Publisher: American Society for Pharmacology and Experimental Therapeutics
DOI: 10.1124/mol.119.118927

New Author Guidelines for Displaying Data and Reporting Data Analysis and Statistical Methods in Experimental Biology
Author(s): Martin C. Michel, T.J. Murphy, Harvey J. Motulsky
Published in: Journal of Pharmacology and Experimental Therapeutics, Issue 372/1, 2019, Page(s) 136-147, ISSN 0022-3565
Publisher: American Society for Pharmacology and Experimental Therapeutics
DOI: 10.1124/jpet.119.264143

New Author Guidelines for Displaying Data and Reporting Data Analysis and Statistical Methods in Experimental Biology
Author(s): Martin C. Michel, T.J. Murphy, Harvey J. Motulsky
Published in: Drug Metabolism and Disposition, Issue 48/1, 2019, Page(s) 64-74, ISSN 0090-9556
Publisher: American Society for Pharmacology and Experimental Therapeutics
DOI: 10.1124/dmd.119.090027

Systematic review of guidelines for internal validity in the design, conduct and analysis of preclinical biomedical experiments involving laboratory animals
Author(s): Jan Vollert, Esther Schenker, Malcolm Macleod, Anton Bespalov, Hanno Wuerbel, Martin Michel, Ulrich Dirnagl, Heidrun Potschka, Ann-Marie Waldron, Kimberley Wever, Thomas Steckler, Tom van de Casteele, Bruce Altevogt, Annesha Sil, Andrew S C Rice
Published in: BMJ Open Science, Issue 4/1, 2020, Page(s) e100046, ISSN 2398-8703
Publisher: BMJ
DOI: 10.1136/bmjos-2019-100046

Other (3)

Sex differences in behaviour and molecular pathology in the 5XFAD model
Author(s):
Annesha Sil, Arina Erfani, Nicola Lamb, Rachel Copland, Gernot Riedel, Bettina Platt
Published in: Journal of Alzheimer's Disease (in press currently- preprint online on BioRxiv), 2021
Publisher: BioRxiv
DOI: 10.1101/2021.04.29.440396

Synaptic dysfunction and memory impairments in transgenic Alzheimer's disease models: A systematic review protocol
Author(s): Kaitlyn Hair, Juan Pita Almenar, and Emily Sena, on behalf of the EQIPD WP2 study group
Published in: Open Science Framework, Issue N/A, 2019, Page(s) N/A
Publisher: Open Science Framework

The open field test protocol in transgenic Alzheimer's disease models: A systematic review protocol
Author(s): Kaitlyn Hair and Emily Sena, on behalf of the EQIPD WP2 study group
Published in: Open Science Framework, Issue N/A, 2019, Page(s) N/A
Publisher: Open Science Framework

Conference proceedings (1)

Increasing the reliability of preclinical data: enabling approaches.
Author(s): Isabel A. Lefevre
Published in: Invited speaker, 11th World Congress on Alternatives and Animal Use in the Life Science (WC11), Issue Congress postponed to August 2021, abstract published on July 6, 2020, 2020, Page(s) p 204
Publisher: World Congress on Alternatives and Animal Use in the Life Sciences

Book chapters (12)

Learning from Principles of Evidence-Based Medicine to Optimize Nonclinical Research Practices
Author(s): Isabel A. Lefevre, Rita J. Balice-Gordon
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 35-54, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_276

Building Robustness into Translational Research
Author(s): Betül R. Erdogan, Martin C. Michel
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 163-175, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_283

Blinding and Randomization

Author(s): Anton Bespalov, Karsten Wicke, Vincent Castagné
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 81-100, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_279

Good Research Practice: Lessons from Animal Care and Use
Author(s): Javier Guillén, Thomas Steckler
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 367-382, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_292

Quality Governance in Biomedical Research
Author(s): Anja Gilis
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 349-365, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_291

Minimum Information in In Vivo Research
Author(s): Patrizia Voehringer, Janet R. Nicholson
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 197-222, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_285

Quality in Non-GxP Research Environment
Author(s): Sandrine Bongiovanni, Robert Purdue, Oleg Kornienko, René Bernard
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 1-17, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_274

Guidelines and Initiatives for Good Research Practice
Author(s): Patricia Kabitzke, Kristin M. Cheng, Bruce Altevogt
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 19-34, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_275

General Principles of Preclinical Study Design

Author(s): Wenlong Huang, Nathalie Percie du Sert, Jan Vollert, Andrew S. C. Rice
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 55-69, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_277

Resolving the Tension Between Exploration and Confirmation in Preclinical Biomedical Research
Author(s): Ulrich Dirnagl
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 71-79, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_278

Electronic Lab Notebooks and Experimental Design Assistants
Author(s): Björn Gerlach, Christopher Untucht, Alfred Stefan
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 257-275, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_287

Design of Meta-Analysis Studies
Author(s): Malcolm R. Macleod, Ezgi Tanriver-Ayder, Kaitlyn Hair, Emily Sena
Published in: Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 299-317, ISBN 978-3-030-33655-4
Publisher: Springer International Publishing
DOI: 10.1007/164_2019_289

Non-peer reviewed articles (1)

A European initiative to unclog pipeline for new medicines
Author(s): Malcolm Macleod, Thomas Steckler
Published in: Nature, Issue 568/7753, 2019, Page(s) 458-458, ISSN 0028-0836
Publisher: Nature Publishing Group
DOI: 10.1038/d41586-019-01293-5

Monographic books (1)

Good Research Practice in Non-Clinical Pharmacology and Biomedicine

Author(s): Bespalov A, Michel M, Steckler T (eds.)
Published in: Handbook of Experimental Pharmacology, Good Research Practice in Non-Clinical Pharmacology and Biomedicine, Issue 257, 2020, Page(s) 1-424, ISBN 978-3-030-33656-1
Publisher: Springer
DOI: 10.1007/978-3-030-33656-1