Zika
Preparedness Latin American Network

Prof Annelies Wilder-Smith
Umeå Centre for Global Health Research
ZikaPLAN consortium: 25 partners
Network (pre-existing) structure

1. MERG: unravelling Congenital Zika Syndrome
2. NEURO-Zika: neurological manifestations
3. Non-Vector Transmission of ZIKV
4. NEURO-Zika: pathogenesis
5. Platform for Diagnostics Innovation and Evaluation
6. INVADE: Investigating Vaccines in Antibody Dependent Enhancement
7. Viral Fitness: current versus historic ZIKV strains
8. Disease Burden and Risk Assessment
9. Mathematical modelling to inform public health policies
10. WEAR: Wearable Aedes Repellant Technologies
11. PLAN: Preparedness Latin-American Network
12. Dissemination and Communication
13. Consortium Coordination

INVADE: Investigating Vaccines in Antibody Dependent Enhancement
Viral Fitness: current versus historic ZIKV strains
Clinical sites
"A world-wide prospective study of INC on prognosis and biomarkers in GBS"
This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No [ ]

RELDA: Arbovirus Laboratory Network in Latin America (WP 5)

22 countries in the RELDA network
ECLAMC: Estudio Colaborative Latino Americano de Malformaciones Congenitas

Coordinating team of ECLAMC in Buenos Aires

Composed of a network of hospitals in Latin American countries. 35 hospitals in Chile, Argentina, Bolivia, Brazil, Peru, Venezuela and Colombia.
Clinical sites network for research capacity building and preparedness

IGOS network

Community of practice for vector control

Birth defect surveillance network (with EUROCAT and ECLAMC)
Shared work packages with ZikAlliance and ZikAction

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15. ZIKA-COLLAB
Introducing REDe and explaining the role of The Global Health Network

By harnessing the sharing revolution and digital technology to exchange skills, knowledge and research tools .... Which has the added benefit of making research processes FASTER and BETTER and removing duplication

Trudie Lang
Clinical research involves many steps... Sharing methods and resources between groups, disease areas and regions brings:

- Standardisation
- Better research practices
- Immediate access to knowledge & information
- Enable data sharing
- Use of same terminology
- Increased collaboration
- Peer support & networking

AND! Streamlines and speeds up the process
The Global Health Network Member Areas

- Global Health Social Science
- Mesh
- Zika Infection
- Bioethics, Research Ethics & Review
- CONSISE
- Ebola Clinical Trials
- ELSI 2.0
- ERGO
- Global Health Data Management
- Global Epidemic Research
- Global Health Cancer
- Global Health Coordinators
- Global Research in Autism and Neurodevelopment
- Global Health Laboratories
- Global Health Microbiology
- Global Health Trials
- Global Mother Child Research
- Global NTD Research
- Global Research Nurses
- Global Traditional Medicine

Elida 2.0
ERGO
Global Health Data Management
Global Epidemic Research
Global Health Cancer
Global Health Coordinators
Global Health Diagnostics
Global Health Network
A platform for research staff for training, career development and to guide their studies through expert help, tools and resources
Providing applications to enable and speed-up research

- 33 Communities of Practice
- >900,000 visits
- >83,000 site memberships
- >38,000 document downloads

www.tghn.org/glance
The Training Platform

Global Health Training Centre

Welcome to the Global Health Training Centre

This new Training Centre brings together a wealth of training materials and resources from across The Global Health Network for all your research training and continued professional development needs. This platform is completely free, accessible to all and aims to provide research staff of all roles, all regions and all disease areas with the ‘new’ training materials required to safely conduct high quality research. Use the portals below and the navigation tabs above to discover all the available content.

Take a free e-Learning course
The Global Health Training Centre provides a wealth of on-line research training courses. Short ‘how to’ courses and longer more in depth modular courses are waiting for you, take one today!

New e-Seminar

News

MSC International Health and Tropical Medicine

The University of Oxford MSC in International Health and Tropical Medicine provides a multidisciplinary and interdisciplinary foundation in global Health. Scholarships are available to eligible students.

InterGROWTH-21×21
Provides the conversation about how to deliver more effective care for preterm babies on BetterCareTogether.org

WorldPrematurityDay
Retweeted by GlobalHealthNetwork

ZikaPLAN
Conducting Clinical Research:
1. Introduction to Clinical Research – EACCR
2. ICH Good Clinical Practice – MRC The Gambia
3. The Research Question – Expert driven content
4. The Study Protocol: Part one – Expert driven content
5. The Study Protocol: Part two – Expert driven content
6. Data Safety Monitoring Boards for Clinical Trials – Expert driven content
7. Introduction to Informed Consent – MRC The Gambia
8. Introduction to Data Management for Clinical Research Studies - DNDi, UCT
9. Introduction to Collecting and Reporting Adverse Events – MRC The Gambia

Specialist Topics:
1. Introduction to Good Clinical Laboratory Practice – Gates Foundation GHCC
2. Ethics of Ancillary Care in Research – John Hopkins University
3. Introduction to Reviewing Genomic Research – Expert driven content
4. The Retrospective Treatment Outcome Study for Traditional Medicines – Expert driven content
5. How to Conduct GCP Inspections/Audits at the Clinical Investigator Site – Expert driven content
6. Ethics & Best Practice in Data Sharing in Research – Expert driven content
Face to face workshops

Global Health Network’s Research Skills Workshops

- Innovative workshop programme facilitates free research-skills training days
- Bring together all local research staff, transcending the boundaries related to role
- Sharing best practice in an open-access setting

Workshops - Low Cost - High Impact

- Low cost
- High attendance
- Increased knowledge:
  - 20% knowledge increase
  - Better local networking
  - Increased culture of learning
Community Engagement Support

- Community engagement is critical to good quality research studies that are meaningful.

- MESH – is a community to promote good community engagement in health research; watch their video: [https://mesh.tghn.org/about/](https://mesh.tghn.org/about/)
Regional faculties: Levels of Membership

**Individual Users**

**Contributor** (start a relevant new discussion, share event, share a template, post a blog)

**Senior Contributor** (shares relevant, approved guidance article; conduct seminar at your site, respond to others’ questions)

**Expert Contributor** Submit multiple relevant guidance articles and/or templates, provide expert advice to others’ questions, organise events (Panel discussions, seminars, workshops), develop local support for Global Health Trials.

**Regional Faculty**

**Bronze Level Regional Faculty**
Organisation of limited local events; limited strategic plan for continuation of faculty

**Silver Level Regional Faculty**
Organisation of some local events and disseminated info about Global Health Trials
Strategic plan for continuation of faculty
Clear efforts to find innovative ways to increase research capacity locally (e.g. developing network)

**Gold Level Regional Faculty**
Organisation of multiple local events
Clear plan for sustainability (e.g. group tries to find own funding)
Conducts research about local research capacity
Introducing REDe
Research Capacity Network

Welcome to REDE! Tell us what you need in your area

Bienvenidos a REDE. Escribimos para poder trabajar juntos en crear una red internacional de investigación científica y ayudar a mejorar las capacidades para investigaciones futuras.

Esperamos escuchar de ustedes!
El Equipo Editorial

Welcome to REDE everybody! We look forward to working together to create an in will bring together the research community and help to build capacity for future re introducing yourself!
Telling us where you are
Telling us what three things would make a difference to research capacity in your area.

Home
This is the working space for REDe, the research capacity network that is run by the three EU Zika consortia; ZikaPLAN, ZikAlliance and ZikAction. The aim is to build strong partnerships between all research sites running Zika studies in Latin America and the Caribbean so we can work together and develop a sustainable platform for research that can respond to future outbreaks.

REDe Resources
Access resources to guide, teach, support and train you and your team in setting up and running high quality studies.

LEARN MORE
Tasked with building a research network across all 3 Consortia....

“This regionally-led network needs to be equipped with the knowledge, methods, skills and capabilities to support a high quality, rapid and coherent research response to the Zika outbreak in the short term.

In addition this network sets out to establish lasting capacity to conduct research in the event of other vector-borne and emerging infectious disease outbreaks in Latin America in the long-term”
Regional network of excellence for research that shares knowledge, expertise & provides local support & training when & where needed in EID preparedness & response.

Collaborate with regional & international networks to leverage synergies to identify & address regulatory bottlenecks in EID preparedness & response.

Leverage input & data from peer networks & research databases to speed up evidence generation & improve research efficiencies in EID preparedness & response.

Develop a sustainability plan that will allow the network to continue beyond the funding period.
The TGHN platform

We offer The Global Health Network as a resource for everyone to use for sharing methods and knowledge.

All three consortia will be using this platform as a knowledge hub for dissemination and knowledge exchange.

There are inbuilt mechanisms for cross-posting and linking; and our team will work with the consortia to track and exchange on what is happening where.
Shared work packages with ZikAlliance and ZikAction

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<table>
<thead>
<tr>
<th>WP's</th>
<th>Addressing urgent gaps and creating the evidence base</th>
<th>Implications for immediate interventions</th>
<th>Long-Term research network</th>
<th>Found -ation</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP1 MERG</td>
<td>Determining the attack rate, the case definition of congenital Zika syndrome and the extent of disability and health care impact</td>
<td>Harmonized Latin-American wide guidelines for the management of severe illness caused by Zika</td>
<td>Platform for intervention (vaccine and drug studies)</td>
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<td>WP2 NEURO-Zika: clinical</td>
<td>Investigating neurological complications of Zika</td>
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<td>WP3 Non-vector transmission</td>
<td>Mice models developed to study potential interventions to sexual and vertical transmission; semen studies in ZIKV patients</td>
<td>Potential for additional studies to develop specific therapeutic interventions to mitigate severe complications of Zika infections</td>
<td>Platform for evidence-based public health responses</td>
<td>Research network against any future emerging severe infectious threats</td>
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<tr>
<td>WP4 NEURO-ZIKA: pathogenesis</td>
<td>Pathomechanisms of neuroinvasion and immune mediated response</td>
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<td>Platform for deployment of large scale pathogenesis studies</td>
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<tr>
<td>WP5 INVADE: Investigating Vaccines in Antibody Dependent Enhancement</td>
<td>ADE as cause for more severe Zika disease either confirmed or excluded; T and B cell epitopes defined for vaccine and diagnostic applications</td>
<td>Platform for evaluation of diagnostic assays developed within ZikaPLAN and beyond (commercial companies, academia)</td>
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<td>WP6 Platform for diagnostics innovation and evaluation</td>
<td>Biobank and virtual platform for diagnostics evaluation, POCTs according to WHO TTP</td>
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<td>Global laboratory platform to evaluate diagnostics for flavivirus infections</td>
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</tr>
<tr>
<td>WP</td>
<td>Project Title</td>
<td>Description</td>
<td>Platform</td>
<td>Research network against any future emerging severe infectious threats</td>
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<td>WP7</td>
<td>Contemporary versus historical viral fitness of ZIKV</td>
<td>Determining the phenotypic differences of the current Zika viruses with historical Zika viruses</td>
<td>Designing evidence-informed public health responses</td>
<td>Research network against any future emerging severe infectious threats</td>
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<tr>
<td>WP8</td>
<td>Disease burden and Risk Assessment</td>
<td>Establishing burden of disease and risk of further spread and future predictions; tools for birth defect surveillance,</td>
<td>Platform for evidence-based public health responses</td>
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<tr>
<td>WP9</td>
<td>Mathematical modelling to inform public health policies</td>
<td>Modelling vector control strategies; vaccine strategies; transmission dynamics</td>
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<td>WP10</td>
<td>WEAR : WEarable Aedes Repellant Technologies</td>
<td>Wash-in detergent formulations and impregnated clothing technologies for the protection against Aedes mosquito bites</td>
<td>Personal protective measures for affected communities</td>
<td>Rapidly scalable intervention</td>
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<td>WP11</td>
<td>PLAN: Preparedness Latin-American Network</td>
<td>Online curriculum and education website, engaging with affected communities, stakeholders and policymakers, adaptable study protocols, resolving regulatory and administrative bottlenecks</td>
<td>Network prepared for rapid support of designing clinical and public health responses</td>
<td>Platform for a Latin American research network for birth defect surveillance, hospital based research, and cohort studies</td>
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<td>WP12</td>
<td>Dissemination and Communication</td>
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<td></td>
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<td>WP14</td>
<td>Zika Data Share</td>
<td>Enhance outreach through and along the work of the other EU funded consortia, ZIKAction and ZikAlliance</td>
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<td>Network beyond ZikaPLAN</td>
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## Network capacity

### Table: Complementarity of the expertise in Zika planning

| Expertise                        | ILSFPM | UGGLA | ICFX | OMUL | ICM | KU | FMI | UNCR | IPV | UNAL | FMDV | UNDC | IJI | FSB | IB | ECM | FiC | ECLAMC | Riss | IFK | IFDP | STPH | IFDI | IFDPMI |
|----------------------------------|--------|-------|------|------|-----|----|-----|------|-----|------|------|------|-----|-----|----|-----|----|--------|------|----|-----|------|------|------|--------|
| Population studies               | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  |     |      |     |      |      |      |     |     |    |     |    |        |      |    |     |      |      |      |        |
| Birth Defect Registries         |        |       |      |      |     |    |     |      |     |      |      |      |     |     |    |     |    |        |      |    |     |      |      |      |        |
| Clinical Studies                 | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Neurology                        | ✔      | ✔     |     | ✔    | ✔   |     | ✔   |     |     |      |      |      |     |     |    |     |    |        |      |    |     |      |      |      |        |
| Immunology                       | ✔      | ✔     |     |     | ✔   | ✔  | ✔   | ✔    | ✔   |     |      |      |      |     |     |    |     |    |        |      |    |     |      |      |      |        |
| Guillain-Barre Syndrome          | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Biomarkers                       | ✔      | ✔     |     | ✔    | ✔   |     | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Animal Studies                   | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Surveillance                     | ✔      | ✔     |     | ✔    | ✔   |     | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Entomology                       | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Vector control                   | ✔      | ✔     |     | ✔    | ✔   |     | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Virology                         | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Modelling                        | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Clinical trials                  | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  |     | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Clinical management              | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Viral genetic studies            | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Diagnostic assays                | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Networking                       | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Communication                    | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Social Science                   | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |
| Economic Evaluation              | ✔      | ✔     | ✔    | ✔    | ✔   | ✔  | ✔   | ✔    | ✔   | ✔    | ✔    | ✔    | ✔   | ✔   | ✔  | ✔   | ✔  |        |      |    |     |      |      |      |        |