Research Institute of the Rome Foundation

ROME FOUNDATION

ROME FOUNDATION RESEARCH INSTITUTE (RFRI)

Rationale

Scientific developments in recent years may lead to significant expansion in knowledge on the FGIDs, also called Disorders of Gut-Brain interaction (DGBI). However, research has often occurred in single academic centers using small patient cohorts. The Rome consensus process, which generates the Rome IV chapters, criteria and Working Team Reports on specific aspects of FGIDs, readily identifies the gaps in our knowledge and makes recommendations for future studies. However, actually being able to answer these research questions are difficult, as there is an insufficient process in place to have them adequately addressed.

Advancing the field requires standardized state-of-the-art data collection, preferably with a broad international scope. While several databases already exist, they are usually confined to single centers and the characteristics of the data are heterogeneous since they were not collected using well vetted uniform data-collection methods. Single center research on FGIDs often generates observations, concepts or hypotheses that require confirmation or validation in a larger setting.

There is now a compelling need to advance the science through a research infrastructure that will integrate a well-coordinated international research program by expert investigators who are well versed in the scientific method needed to accomplish these goals. This will involve the creation of a patient database and biobank for prospective studies to implement advanced FGID phenotyping, identify risk factors, develop suitable biomarkers, evaluate novel or emerging diagnostic tools, optimize or expand existing patient reported outcome measures for FGIDs, guide choices of existing therapies, and advance therapeutic innovation and optimization.

The Rome Foundation is uniquely able to bring in world class investigators and to recruit patients internationally using uniform validated selection criteria for conduct of research studies in FGIDs. A Rome Foundation international working team has also published guidelines about how to conduct multinational, cross-cultural research in FGIDs.

To accomplish this, the Rome Foundation has created the Rome Foundation Research Institute (RFRI) with the mission to more effectively increase the knowledge about these disorders through facilitation of top class translational and clinical research.

The Rome Foundation has the portfolio of Rome IV and other questionnaires in multiple languages and can also license from our extensive library a large variety of research questionnaires developed for and used in the FGID population. In fact most all of the research questionnaires related to FGIDs are licensed by the Rome Foundation. The RFRI will use these and its other resources to create an unprecedented international research platform for FGIDs. The RFRI will also facilitate research collaborations with academic institutions, scientific organizations, and industry. Based on its assets, as well as the proposed organization structure and qualifications of participating scientists, the RFRI offers unprecedented opportunities for large scale high level research. Research initiatives will involve not only the scientific community but also the pharmaceutical, functional food and device industries involved in advancing the of patients with FGIDs.

Aim, Mission and Implementation

We seek to create an international academic research institute that advances scientific understanding of the disorders of gut-brain interaction, and the aims and implementation process can be found in Table 1. Through a gradual increase in the number, scope, and types of projects, as well as the number of centers involved in the projects, the Rome Foundation will advance the Research Institute to become the global leader in FGID research. The Rome Foundation can provide best opportunity for achieving these goals also by actively collaborating with Industry, and other academic non-Rome stakeholders and funding agencies.

Table 1

Vision	Mission	Aim
To be the global leader in FGID research.	To improve the lives of patients with FGIDs through ground-breaking research.	To increase the knowledge of the causes, identification, treatment, and care of patients with FGIDs.

Implementation

Establish an international academic research initiative with leading experts, in order to facilitate global FGID research through collaboration with industrial and academic partners and with the following objectives:

1. Develop a centralized data acquisition and research coordinating center.
2. Serve as an international clearinghouse for investigators and industry in the development, administration and analysis of clinical research in FGIDs.
3. Develop a portfolio of current and future study protocols and an accessible database of knowledge which can be adapted to address specific questions regarding FGID pathophysiology, impact, diagnosis and treatment.

Overall structure of RFRI

The RFRI is coordinated by an **Executive Committee**, consisting of Dr. Magnus Simren, the Research Director and Drs. Douglas Drossman and Jan Tack. This **Executive Committee** wiht the advice of the **Research Advisory Committee** and **Industry Council**, will be ultimately responsible for assuring that the aims and objectives of the program are achieved. Under the direction of the **Executive Committee** and **Research Advisory Committee** and **Industry Council**, all projects with be implemented through the RFRI cores. The activity of the Cores will be determined by the ongoing and expected activities and workload within the RFRI, and their composition may vary accordingly (Figure 1). Three of the cores ("**Biometry, Data Management, and Analysis**," "**Clinical Research Network Core,**" and "**Biobank and Biomarker Data Core**") will be actively involved in specific aspects of protocol development and implementation, and as a consequence will often collaborate on a given protocol.

A key component of the RFRI is the **Industry Council**. This is composed of pharmaceutical, diagnostic, device, nutrition, and other healthcare industry participants who contribute to the RFRI mission. The **Industry Council** is comprised of representatives of companies that provide sponsorship support to the RFRI. It is the forum where the RFRI, represented by the **Executive Committee**, select members of the **Research Advisory Committee** and members from the **RFRI Cores**, and interacts with industry participants. At the **Industry Council**, the progress and outcomes of database, biobank, diagnostic, and therapeutic innovation projects are summarized, planned research activities and future initiatives are discussed, and outcomes of finished projects are presented. Thus all experts involved in the RFRI including industry exchange ideas, receive feedback and suggestions for optimization of planned studies, receive ideas for additional analyses on existing datasets, and generate novel study topics. While members of the **Industry Council** share knowledge to help advance the field each company will also maintain their independent scientific and commercial development agenda.

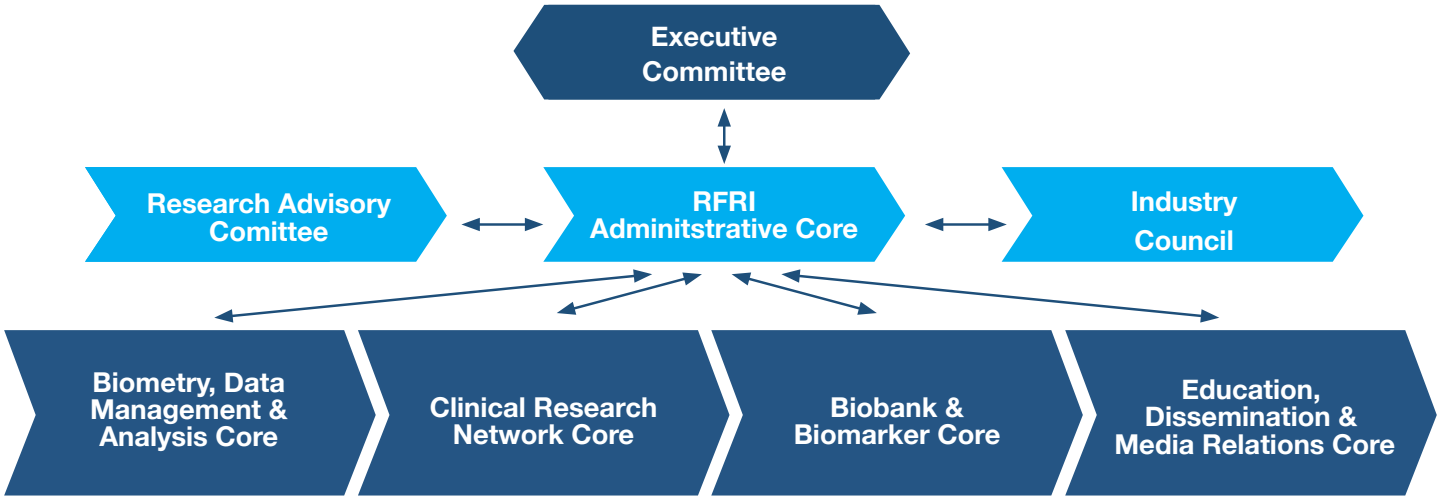


Figure 1. Overall structure of RFRI

The most active parts of RFRI are the cores who are in charge of different tasks with RFRI. The **Administrative Core** is responsible for the oversight of the RFRI which includes research, training, and education-dissemination activities, and for the overall administration of the RFRI, involving clinical services research, training, collaboration with sponsors and outside agencies, and education.

The **Biometry, Data Management and Analysis Core** (Dr Olafur Palssson, Director, and the chief biostatistician, Shrikant Bangdiwala, Co-director) is responsible for providing and/or ensuring the standards for high quality data management systems, quality assurance processes and statistical analytic methodology aspects for the RFRI.

The **Clinical Research Network Core** (co-directed by Dr. Lin Chang and Dr. William Chey) is responsible for providing the infrastructure and maintaining the standards for clinical investigative studies involving epidemiological, clinical, outcomes, and treatment studies. This Core serves as a clearinghouse for research and is responsible for identification and selection of study centers. Already today a network of top class international researchers interested in taking part in multinational research studies under the umbrella of RFRI has been identified (Figure 2), and information about their area of interest, research experience, type of studies capable of participating in, possibilities to perform advanced phenotyping, as well as their biobanking abilities (Table 2).

The **Biobank and Biomarker Core** (Giovanni Barbara, Director, Max Schmulson, Co-Director) is responsible for identifying biological samples and relevant biomarkers to be assessed in specific FGID cohorts, as well as identifying existing protocols and standard operational procedures, and establishing new internationally standardized protocols for the collection and storage of samples and developing quality assurance procedures and manuals for these procedures.

The **Education, Dissemination and Media Relations Core** (Directed by Douglas Drossman and administered by the Executive Director of the Rome Foundation, Johannah Ruddy) will serve primarily to assure quality control in the dissemination of research knowledge that is accumulated from the RFRI. Quality control means to assure that the information provided by the RFRI to external organizations, media and journals, and other publications, printed and digital will be scientifically based, unbiased and non-commercial. In addition, this core will serve to monitor media, publications and other communications from external sources (news bureaus, scientific organizations, industry) to be sure that the information provided is accurate, scientifically based and unbiased.

World Distribution of RFRI Investigators
91 investigators in 33 countries

Figure 2. RFRI Research sites

Table 2. Information available about RFRI research sites.

Area of interest	All FGID(s) | Adult or pediatric or both	
Research experience	**Track Record** • Investigator initiated studies • Industry studies • Audit history	**Available infrastructure** • Space for research • Space for samples • Research staff • Equipment • Experience with international collaboration, sample sharing, processing and shipping
Types of studies capable of participating in	Observational studies Cohort studies Case control studies	Randomized controlled trials Phenotyping Biobanking
***Phenotyping study types**	**Clinical phenotyping** • Symptom profiles • Psychosocial features	**Physiological phenotyping** • Transit/motility • Visceral sensation • Microbiome/ metabolome • Permeability • Immune activation • Brain imaging / brain-gut interaction
****Biobanking abilities**	Blood Stool Saliva	Urine Tissue (biopsies)

Collaboration with External Stakeholders

(industry, investigators, funding agencies)

In line with the Rome Foundation's history, the RFRI will provide major opportunities for collaboration with industry participants. These participants are expected to include **Sponsors**, who serve on the **Industry Council** as advisors to the RFRI, and **non-Sponsors** who are external to RFRI but are potentially relevant industry partners, and each would include pharmaceutical industry, health diagnostic companies, device companies, and nutrition companies, among others.

Sponsors would participate in a preferred financial support model under consideration for RFRI engagement through a paid subscription requiring a commitment to the RFRI for a minimum period of 3 years, and an annual fee to maintain sponsor status. The advantages, obligations and requirements for becoming a Sponsor will be addressed in a Sponsor Subscription Agreement, and include, for example:

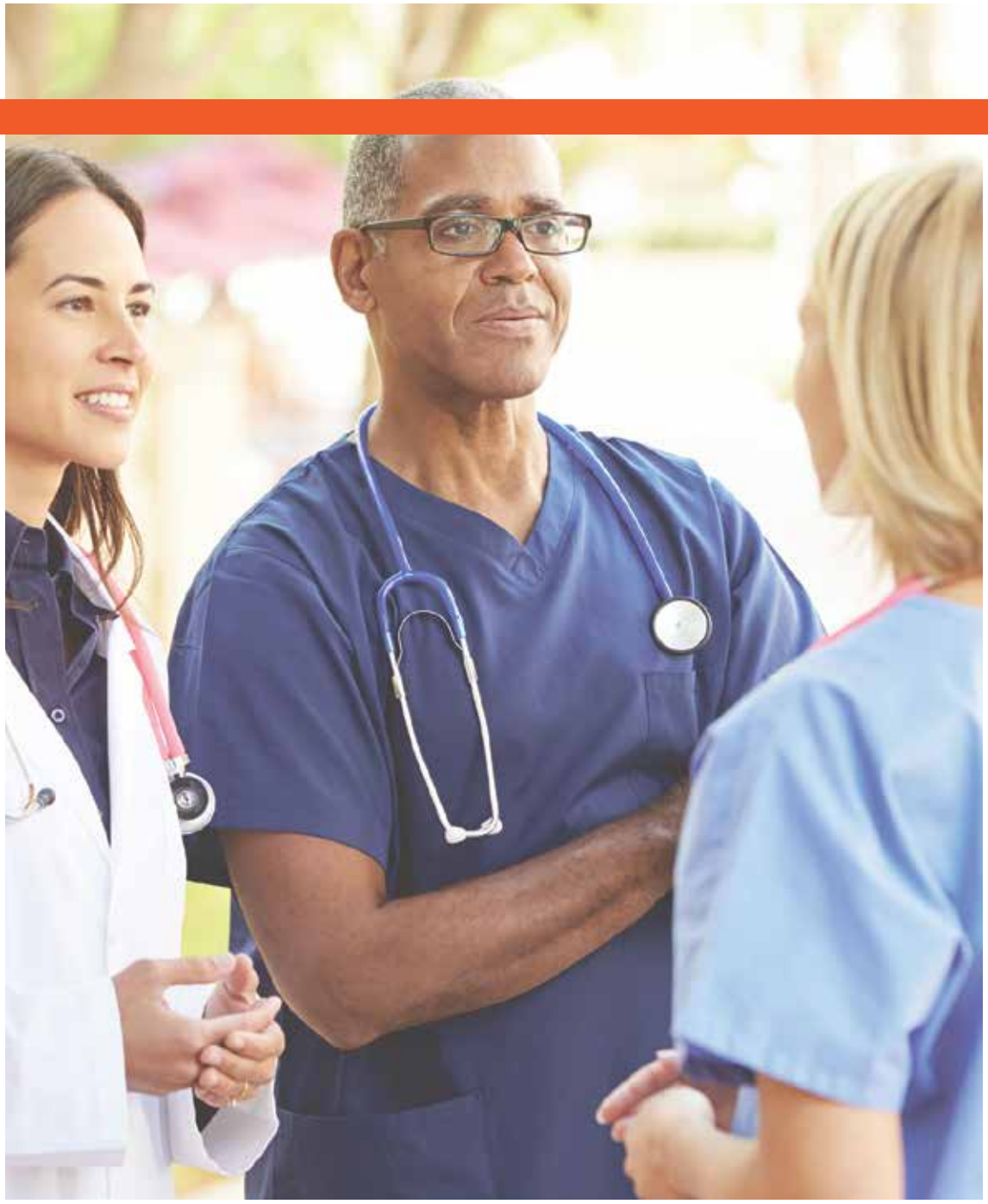
(1) opportunities for scientific strategic engagement in the early phases of the RFRI planning, including participation in detailed planning of projects (e.g. collection and storage of samples, endpoints, clinical phenotyping of patients);

(2) participation on and close interaction with the RFRI through an **Industry Council** meetings;

(3) appropriate access to various infrastructural, intellectual, and operational assets held by RFRI to help Sponsors in their R&D and product development goals on behalf of patients with FGIDs.

(4) discounted charges and reduced royalty fees for engagement in research projects and/or advantages that accrue from higher levels of strategic engagement within RFRI.

Non-sponsors are external to the RFRI and are eligible for bilateral research projects with the RFRI but would not have an advisory role, engage in collaborative research or have preferred financial status. In this capacity the expertise and resources of the RFRI can be applied to individual research projects. This can provide benefits to industry who are not yet able to join as a full sponsor.



To schedule a call to discuss how the RFRI can help your company, email Johannah Ruddy at jruddy@theromefoundation.org