



Innovative Medicines Initiative

The right prevention and treatment for the right patient at the right time

Esther Schenker, PhD
Institut de Recherches Servier
Croissy

Key figures

- Founded in 1954 by Dr. J. Servier
- Presence in 140 countries worldwide
- More than 89 % of drug sales made internationally
- More than 20,000 employees worldwide with nearly 3,000 in R&D

Therapeutic areas of interest



- **Cardiovascular:** hypertension, ischemic heart disease, heart failure, chronic venous disease
- **Oncology**
- **Rheumatology:** osteoporosis, osteo-arthritis
- **Metabolic diseases:** type II diabetes
- **Neurosciences:** neurodegenerative diseases, psychiatric disorders



A 20-year presence

EGIS SA

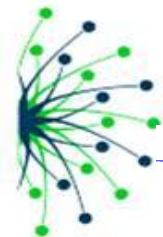
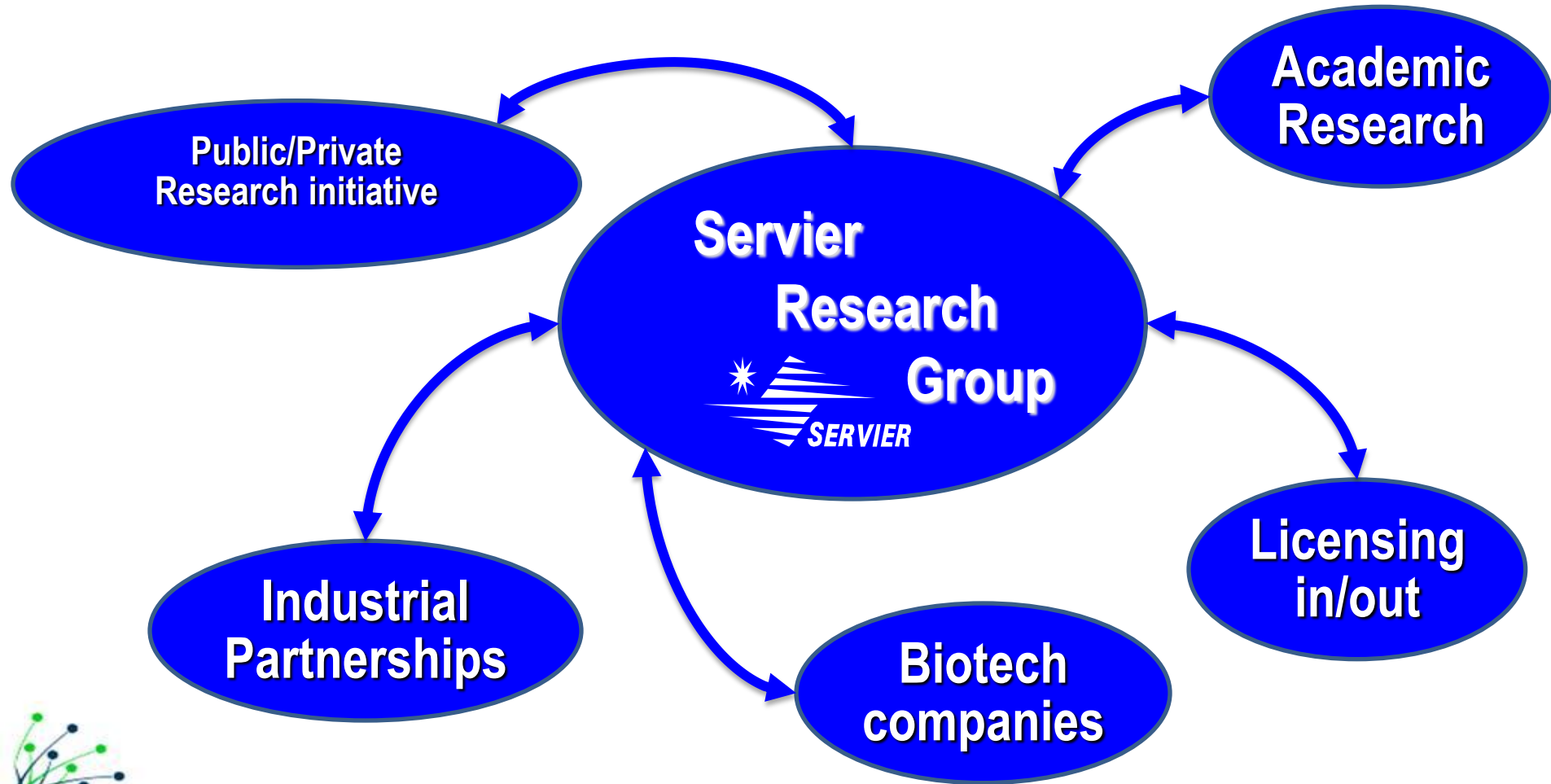
- 3000 employees
- Domestic market share 7.1%

Servier Research Institute of Medicinal Chemistry (SRIMC)

Local Center of Clinical Research (ICTR)



Fruitful exchanges through partnership



Pre-competitive collaborations



Drug safety:



Knowledge Management:



Metabolism:



Oncology:

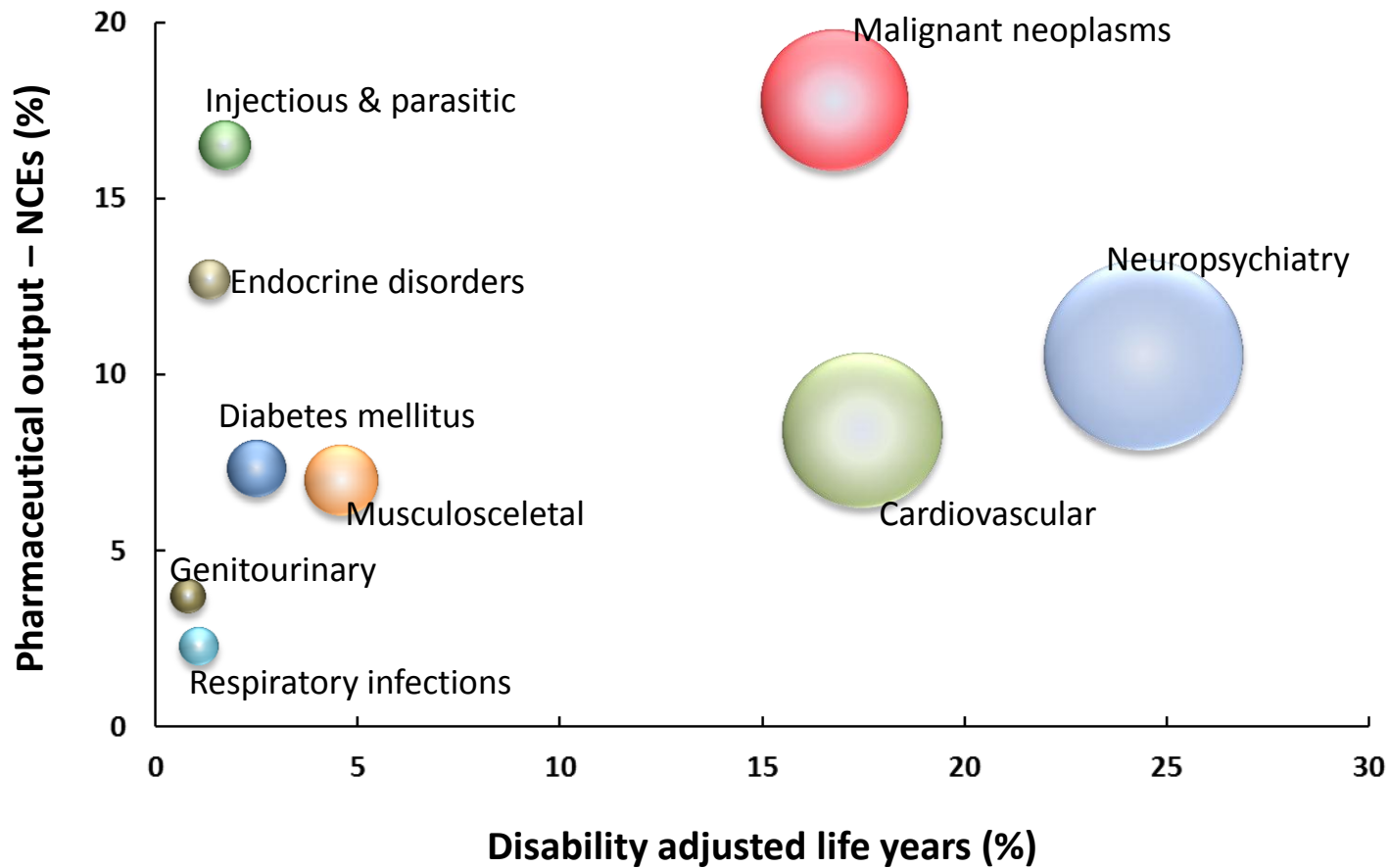


Neuroscience:

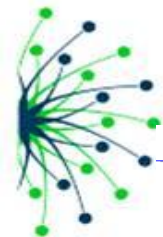


Newly started projects: **APPROACH, PEX-BRB, PRECISEAD, SPRINT-T**

Burden \neq Investment



Adapted from Catalá-López et al., 2010



Key challenges



Challenge

Why do patients not respond well to current medication?

Question:

Can we identify groups of patients and medications that match better?

Clinical phenotype

Biological phenotype

Animal models

Clinical trials in a meaningful way

➡ A clear need for better tools

The need for PrivatePublicPartnerships



- ✦ **The scientific questions that remain unanswered e.g. in psychiatry are extremely complex**
 - One organisation cannot solve the problem alone
- ✦ **Need of platforms to join forces**
 - IMI has successfully provided such platforms



Why platforms



☞ Improve access to clinical data

Research data are scattered among many small cohort studies

Electronic health registry data are not easily accessible

health insurance data

Hospital data

General practitioner registries

Pharmacy registries

Highlights - Opportunities



Examples from newmeds

Psychiatry database with data from 23 401 patients enrolled in 59 studies (data from Big Pharma)

- ☛ 4 week studies are sufficient

Antidepressant database with data from 12 217 patients enrolled in 39 trials (data from Big Pharma)

- ☛ females show less placebo response
- ☛ more males are included in trials

Highlights - Opportunities



Sadly,



Not yet changed the lives of patients suffering from Schizophrenia or depression

But we have:

- Gained insight into the biology of the disease
- Developed novel tools for drug discovery [animal models, human imaging]
- Developed a new web tool for analyses [image analysis, biomarker significance]

Highlights - Opportunities



doi:10.1038/nature12818

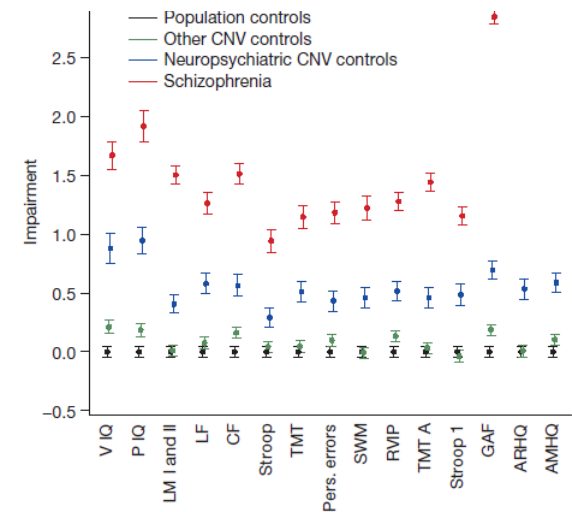
Collaboration between SME, Academia and Industry



CNVs conferring risk of autism or schizophrenia affect cognition in controls

Hreinn Stefansson^{1*}, Andreas Meyer-Lindenberg^{2*}, Stacy Steinberg¹, Brynja Magnúsdóttir³, Katrin Morgen², Sunna Arnarsdóttir^{1,3}, Gyda Björnsdóttir¹, G. Bragi Walters¹, Gudrun A. Jónsdóttir¹, Orla M. Doyle⁴, Heike Tost², Oliver Grimm², Solveig Kristjansdóttir¹, Heimir Snorrason¹, Solveig R. Davídsdóttir³, Larus J. Guðmundsson¹, Guðbjörn F. Jónsson¹, Berglind Stefánsdóttir¹, Isafold Helgadóttir³, Magnus Haraldsson^{3,5}, Birna Jónsdóttir⁶, Johan H. Thygesen⁷, Adam J. Schwarz⁸, Michael Didriksen⁹, Tine B. Stensbøl⁹, Michael Brammer⁴, Shitij Kapur⁴, Jonas G. Halldórsson⁵, Stefan Hreiðarsson¹⁰, Evald Saemundsen^{5,10}, Engilbert Sigurdsson^{3,5} & Kari Stefansson¹

- Cognitive abilities of CNV carriers are in between normal controls and schizophrenic patients
- Cognitive abnormalities are not necessarily consequences of the disease



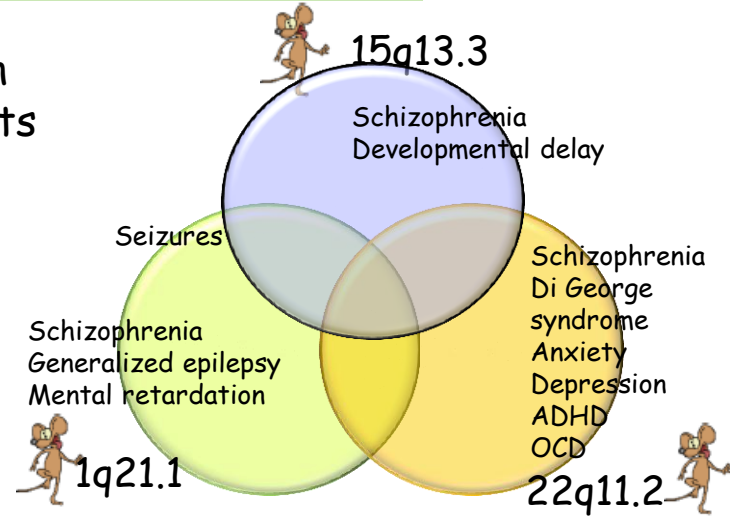
Highlights - Opportunities



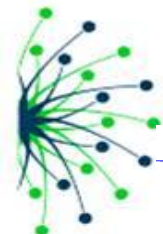
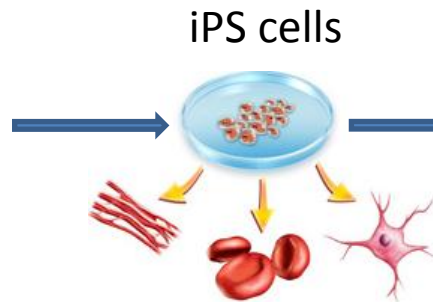
Characterization of 3 CNV high risk genes in humans and rodents



22q11
15q13
1q21



Full translational approach



Highlights - Opportunities



Examples from



Clinical network

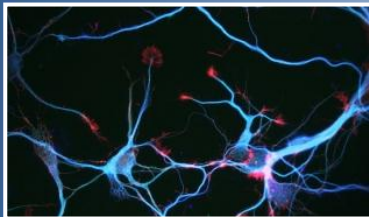
- ✧ Building a large network of expert Autism Spectrum disorder (ASD) clinical research centers across Europe
- ✧ 78 sites in 37 countries
- ✧ Harmonization of diagnostic practice
- ✧ Creation of an interactive platform for ASD professionals and patients



Highlights - Opportunities



- ✦ Development and validation of translational approaches for the advancement of novel therapies to treat ASD



- ✦ Setting new standards in research and clinical development to aid the drug discovery process

The network ...



... creates opportunities, ..



... grey matter, innovation!