Future of Diabetes Research in Europe
JDRF Perspective

IMI-JDRF Diabetes Patient Meeting
20 May 2014
Brussels, Belgium

Olivier ARNAUD, Pharm D
JDRF European Research Director
oarnaud@jdrf.org
Future of Diabetes Research: Lessons from Today (1)

- Life with T1D is a major daily challenge

- 24 hrs, 7 days, 365 days/year challenge of testing blood sugars, monitoring diet, dosing insulin

- Even with extensive effort, cannot achieve optimal glucose control

- Constant fear of low blood sugars and its accompanying morbidity and mortality

- Risk for long-term diabetic complications, which are devastating in their impact to individuals, families, and society
Future of Diabetes Research: Lessons from Today (2)

- Need to **hear the voice of the patient and patient’s family** – deliver impact that addresses daily and long-term needs

- Need **devices and therapies** to decrease the daily burden, uncertainty, danger, and fear of living with T1D or insulin-dependent T2D

- Need to **prevent** low blood sugars and long-term complications

- Need a **Cure**

- Need to **prevent** the disease in **the next generation**

- Need integrated, **high level investment and cooperation in research from all stakeholders** (Member States, Industry, Organization, EC, and Patients)
JDRF's Vision for the Future

LESS

Burden

Invasive

Complexity

Danger

NO T1D

type none

Diabetes Patient Meeting  •  May 20, 2014
JDRF is a virtual R&D organization

- Focused on advancing a pipeline of Research Projects
- Which deliver a continuum flow of therapeutic opportunities
JDRF Partners with Industry Worldwide

- 57 contracts/collaborative partnerships with 42 companies
- Committed ~$130M JDRF research funding
JDRF Priority T1D Therapies

- Encapsulation
- Artificial Pancreas
- Smart Insulin
- Prevention
- Restoration
- Complications
JDRF is a Global Research Organization

2013 Research Funding by Country

U.S. vs Non-U.S. 2013 Funding

Non-U.S. 27%
U.S. 73%

Non-U.S. 2013 Funding

UK 20%
Canada 19%
Australia 17%
Switzerland 7%
Israel 8%
Belgium 7%
Italy 2%
Others 1%
Finland 4%
France 3%
Sweden 4%
Netherlands 3%
JDRF Reinforces Its Effort in Europe

JDRF is a Patient Organization with Key Assets as a Partner in Europe:

1. High Level Patient and Public Involvement (PPI)

- JDRF Board and Board Committees are individuals and family members affected by T1D
- Research funding decisions by Board committee
- Volunteer-led Online Diabetes Support Team (ODST)
- T1D Clinical Trials Connection
  *Matching people with T1D with appropriate clinical trials*
- Several tools and supports for people living with T1D:
JDRF Reinforces Its Effort in Europe

JDRF is a Patient Organization with Key Assets as a Partner in Europe:

1. High Level Patient and Public Involvement (PPI)

- European Affiliates

March 11th 2014 – Over 60 adults and children that live with type 1 diabetes descended on UK Parliament to explain to MPs the impact the condition has on people’s lives and encourage increased spending on research.
JDRF Reinforces Its Effort in Europe

JDRF is a Patient Organization with Key Assets as a Partner in Europe:

Strategy of Active Contribution (Boards – funding - cofunding) in the Development of Initiatives Planned for Horizon 2020 and IMI2

Already participating in IMI / EC supported Programs:

- Innovative Medicines Initiative (IMI)
- DIAMAP (Road Map for Diabetes Research in Europe)
- EURADIA (Alliance for European Diabetes Research)
- Diabimmune Study
- BIOSID project
- Naimit
- SUMMIT
- DIAPREPP (DIAbetes type 1 PRediction, Early Pathogenesis and Prevention)
JDRF Reinforces Its Effort in Europe

JDRF is a Patient Organization with Key Assets as a Partner in Europe:

3. Further Developing Partnering and Research Support

- **Worldwide experience**
  - Partnering with **EASD EFSD**
  - Convening high level international **scientific workshops / meetings / symposia** (25 organized in 2013)
  - **Management of International Consortia**
  - Strong links and collaboration with **NIDDK international oriented Special Diabetes Program** (TEDDY, TrialNet)
  - **TrialNet** – Funded by NIH and JDRF (funds international sites) for T1D risk screening, natural history, and T1D prevention trials
JDRF Reinforces Its Effort in Europe

JDRF is a Patient Organization with Key Assets as a Partner in Europe:

4. Interfacing with Regulatory and Reimbursement Authorities

- Interfacing with US FDA (Draft Guidance for Artificial Pancreas Systems, Encapsulation, Stem Cells, Prevention)
- Public consultation to European Community for improvement of EC Regulatory Directives (ex of Medical Devices, Clinical trial framework)
- Public consultation to EMA for improvement of Guidelines Recombinant human insulin and insulin analogues, Insulin Biosimilar specific guidelines, xenografts
- Addressed pricing and reimbursement strategy for Artificial Pancreas medical device market access
- Interfacing with Government bodies
Overlaps of Priorities and

Drive Change in Delivery of Medical Practice

Target & Biomarker Identification (safety & efficacy)

Biomarker identification/validation (precision medicine)

Reclassification of disease by molecular means

Target identification and validation (human Biology)

Determinants of drug/vaccine safety & efficacy

Innovative drug delivery methodologies

Manufacturing for personalised medicines

Discovery and development of novel preventative and therapeutic agents

Innovative Medicines

Innovative Clinical Trial Paradigms

Innovative methodologies to evaluate treatment effect

Adoption of innovative clinical trial designs

Benefit/Risk Assessment

Healthcare delivery: focus on the treatment programmes not just the medicine

Patient Tailored Adherence Programs

Innovative adherence programmes

European Health Priorities