Europain
Understanding chronic pain and improving its treatment

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IMI Stakeholder Forum - 13 May 2013 - Brussels
We are on pain!

• Chronic pain: 1 out of 5 Europeans suffers from it

• We suffer different types of pain: acute pain, arthritis pain, post-surgical pain, neuropathic pain....

• Neuropathic pain: 5% of the population

• Low quality of life and high burden on patients and society

• Huge unmet need: only 1/3 of chronic pain patients obtain adequate pain relief

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Why is pain so important?

Who wants to suffer?

NOBODY!

EUROPAIN aims at understanding pain mechanisms and improving the development of new treatments for chronic pain.
So many patients
So many etiologies...

Diabetic neuropathy
Postherpetic neuralgia
Focal nerve injury
Radiculopathy

So complicated!
Neuropathic pain: so many symptoms, so many mechanisms!

- Pinprick hyperalgesia
- Mechanical allodynia
- Touch hypoesthesia
- Tinel sign

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Key research challenges

Why we do not have yet a really GOOD drug for Neuropathic Pain?

- No predictive biomarkers for spontaneous pain
- Limited knowledge of critical pain mechanisms
- Huge attrition rate during clinical development
Participants

**EFPIA**
- AstraZeneca
- BoehringerIngelheimGmbH
- Pfizer Limited
- Eli Lilly and Company Ltd
- Esteve S.A.
- UCB Pharma
- Sanofi-Aventis R&D
- Grünenthal GmbH
- Astellas
- AbbVie

**Academia**
- King’s College London
- University College London
- University of Oxford
- Imperial College London
- Christian-Albrechts-Universität zu Kiel
- Ruprecht-Karls-Universität Heidelberg
- Technische Universität München
- BG Universitätsklinikum Bergmannsheil GmbH
- Klinikum der Johann Wolfgang Goethe-Universität
- Aarhus University Hospital
- Region Hovedstaden
- University of Southern Denmark

**Financing**
- IMI funding: 6 MEUR
- EFPIA in kind contribution: 12.5 M €
- Total project cost: 18.5 M €

**SME**
- Neurosciences Technologies S.L.
Headline achievements: Genomics, proteomics

**INPUT:**
Total RNA

**OUTPUT**
- Absolute quantification of gene expression
- Exon and splice junction reads
- Novel exons/splice variants
- Novel genes

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Headline achievements:
Electrophysiology
Headline achievements: Patient profiling
Headline achievements: Neuroimaging

Repeated pain induces adaptations of intrinsic brain activity to reflect past and predict future pain

Headline achievements: Delivering added value

• We have done intensive research & published extensively (>120)
• We are having international consensus meetings: for ex., how to conduct preclinical trials
• We are conducting clinical trials to improve patient stratification
• We are developing tools to predict which patients will respond to treatments
• We are understanding placebo effect to reduce clinical trial failures
• We have initiated EMA interactions to frame regulatory landscape
Headline achievements:
Coordination - Collaboration

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Remaining challenges

Operational
- Integration of data
- Continuity of initiated efforts

Scientific
- Finding true biomarkers of spontaneous pain
- Developing potent, effective pain killers
Thank you

Europain
www.imieeuropain.org

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