

Horizon 2020- Why Epilepsy?

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Why Epilepsy? Facts and Figures



- ❖ 700 million: people who have an epileptic seizure in their lifetime
- ❖ 60 million: people with active epilepsy, more than multiple sclerosis, Parkinson, cerebral palsy and muscular dystrophy combined
- ❖ 7 000 new cases every day
- ❖ Epilepsy affects any age – and its prevalence is increasing, particularly in the elderly
- ❖ Huge burden in terms of human suffering and cost



Epilepsy: The Bright Side



- ❖ 70% of people with epilepsy (PWE) can be made seizure-free with available medications – a few more can be “cured” by surgery
- ❖ Some forms of epilepsy are self-limited
- ❖ When free from seizures, PWE can live normal and productive lives



Epilepsy: The Dark Side



- ❖ One third of people with PWE are refractory to existing treatments – over 20 million worldwide
- ❖ Most forms of epilepsy persist throughout life, and some are progressive
- ❖ Co-morbidities occur in up to 80% of PWE
- ❖ Epilepsy is a deadly disease – 20-fold increase in risk of sudden death
- ❖ Many factors destroying quality of life: seizures, discrimination, and the side effects of drugs



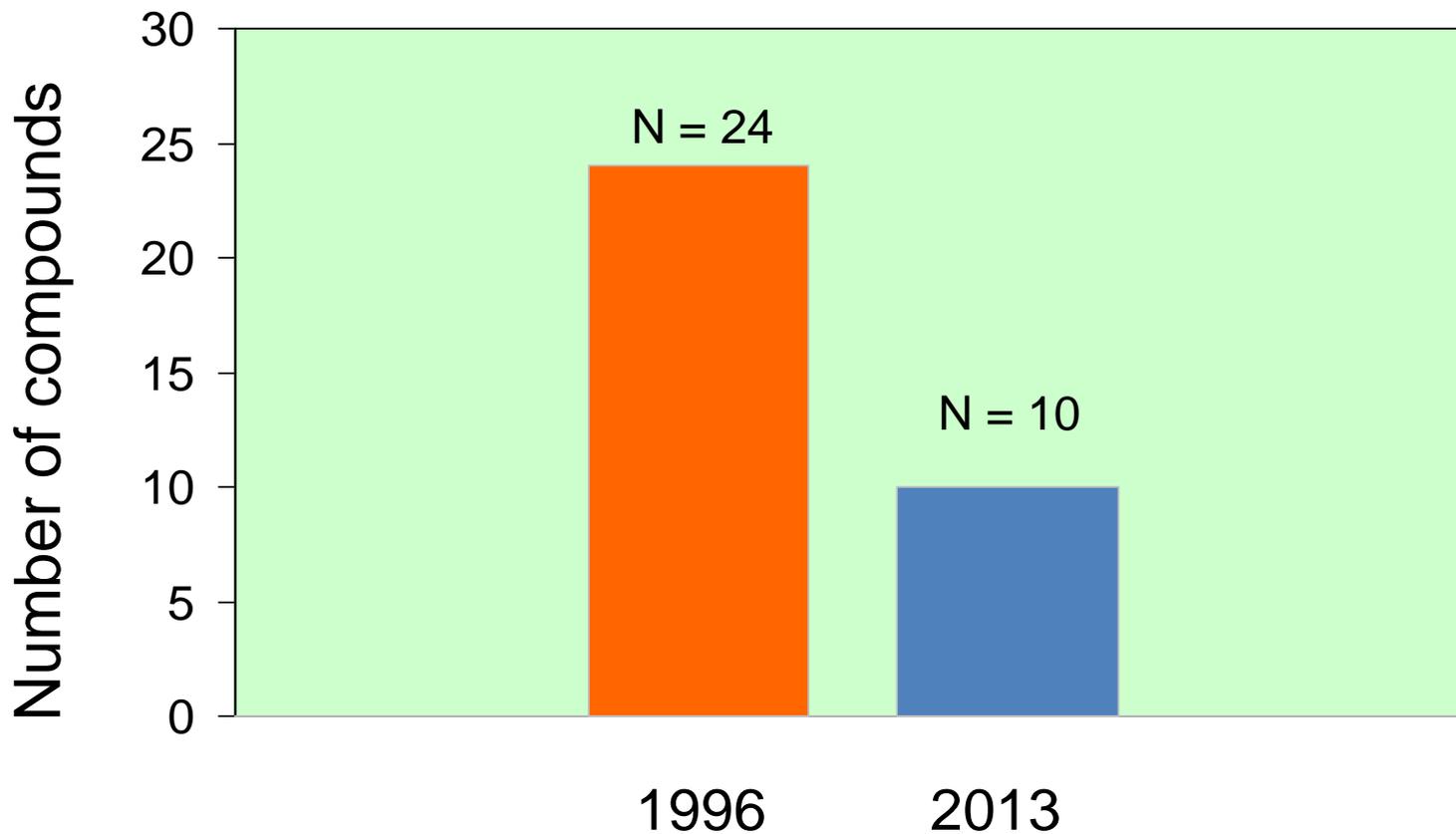
Managing Epilepsy in 2013

The Limitations



- ❖ We lack reliable biomarkers to identify people who will develop epilepsy – a key limitation if we want to develop preventive treatments
- ❖ Existing medications for epilepsy suppress the symptoms, but do not affect the underlying disease
- ❖ Treatment is done by trial and error – we cannot reliably predict which treatment will work best in an individual
- ❖ The medications developed in the last 20 years had little impact on pharmacoresistant epilepsy

Number of Potential AEDs* in Clinical Development: 1996 vs 2013



* Based on information known to the presenter. Drugs already marketed for other indications are excluded



Horizon 20/20: 6 Good Reasons to Prioritize Epilepsy



- ❖ The unmet needs are huge
- ❖ Research is starting to unravel the pathophysiology of epilepsy – and the mechanisms of drug resistance
- ❖ New paradigms for drug discovery need to be introduced
- ❖ Outstanding research groups are emerging in Europe and the rest of the world – all eager to collaborate!
- ❖ Opportunities for partnership with industry, including SMEs in many areas
- ❖ Unprecedented support from the European Parliament



**By Working Together, we can Make a Change
STAND-UP for EPILEPSY!**

