Fra Danmark til resten af verden: Nye fremskridt i epilepsi

Rikke Steensbjerre Møller

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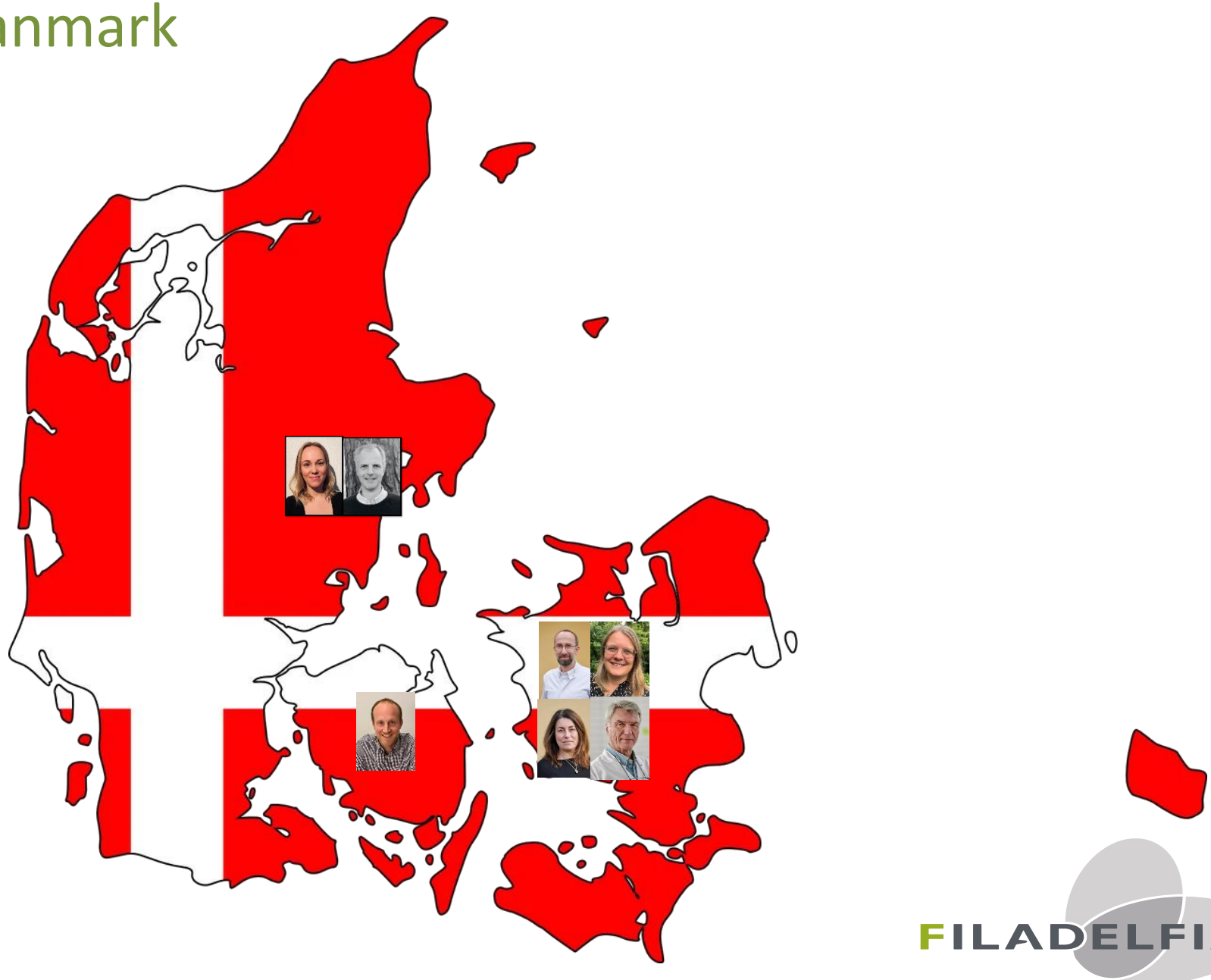
Epilepsikonferencen 2026

Epilepsiforskning i Danmark



SDU

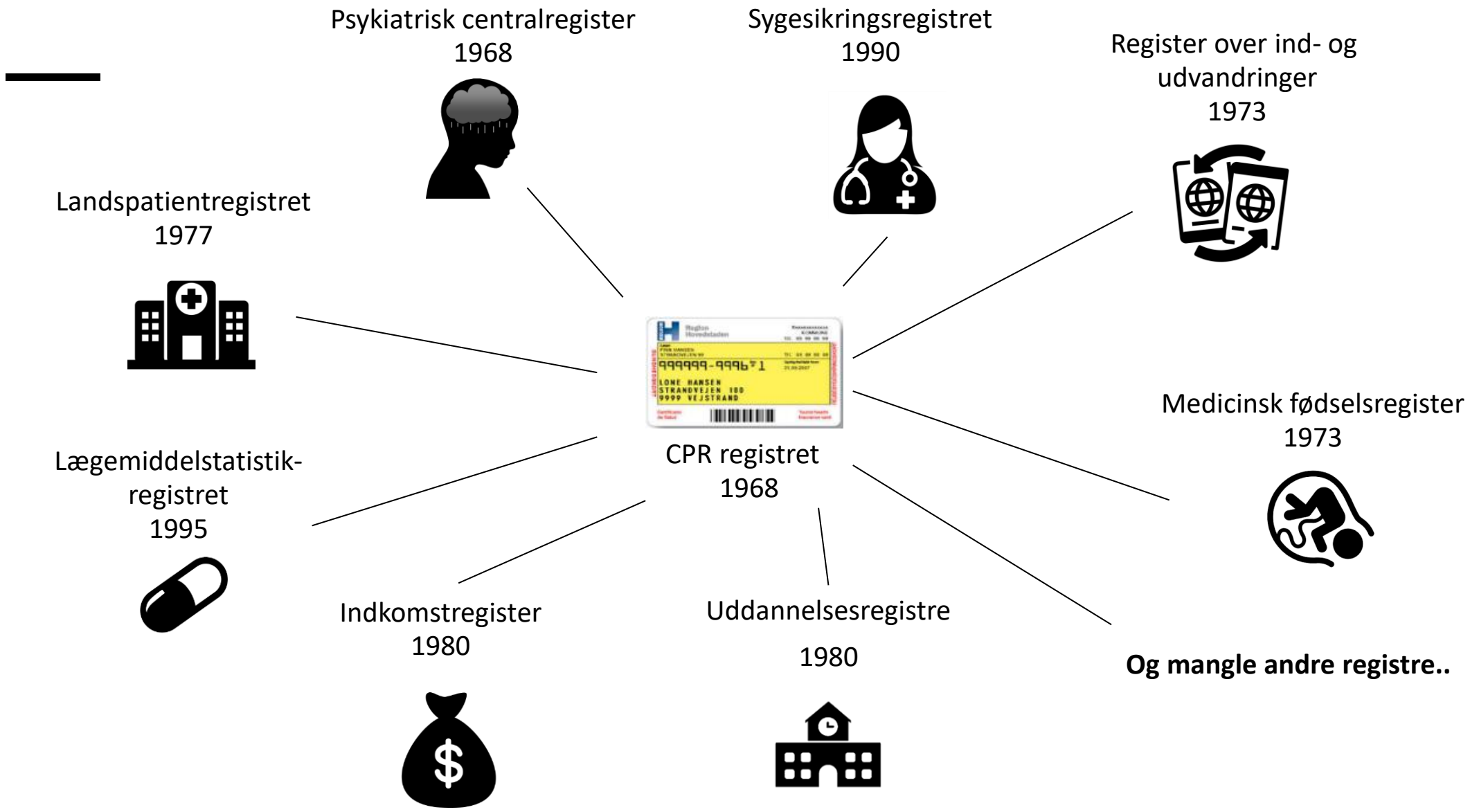
FILADELFIA

Epilepsiforskning ved Center for Register-forskning, Institut for Folkesundhed, Aarhus Universitet

Prof. Julie W Dreier

Prof. Jakob Christensen

Register-baseret epilepsiforskning



Original research

Working years lost in people with epilepsy: a population-based cohort study

Julie Werenberg Dreier [1,2] Betina B Trabjerg,[1,2] Kasper Lolk,[1,2] Oleguer Plana-Ripoll [1,3,4] Jakob Christensen[1,5,6]

► Additional supplemental material is published online only. To view, please visit the journal online (https://doi.org/10.1136/jnnp-2024-335220).

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Check for updates

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ABSTRACT

Background We quantify the loss of working years for people with epilepsy compared with the general population and consider variation by aetiology, psychiatric comorbidity, sex and age.

Methods This population-based cohort study included all individuals aged 18–65 years living in Denmark from 1995 to 2018. Using nationwide registers since 1977, we identified people with epilepsy and obtained information on the main source of income or employment for each year during follow-up from 1995 to 2020. The main outcome was number of working years lost in people with epilepsy compared with the general population of same sex and age, capturing both working life lost due to permanent (death, disability pension, early retirement) and temporary (unemployment, sick leave) factors.

Results The study comprised 5 466 140 individuals, including 74 980 (1.4%) with epilepsy. In people with epilepsy, the number of working years was on average

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ People with epilepsy have lower rates of employment and higher rates of absence when in employment, compared with the general population.
⇒ One Australian study has shown that the productivity-adjusted life-years for epilepsy are reduced by 25.8%, which reflects the societal burden of epilepsy-related productivity loss.
⇒ No prior studies have quantified the number of working years lost in people with epilepsy, reflecting the average productivity loss at the individual level.

WHAT THIS STUDY ADDS

⇒ Our study shows that working life expectancy on average is 6.6 years shorter in people with epilepsy than in the general population, primarily due to a higher rate of early disability
ubstantial loss of
derlying aetiology,
and sex.
ECT RESEARCH,
d for greater efforts
epilepsy in securing
t, to narrow the
ng loss of working
mature death

Vi kan undersøge konsekvenserne af at have epilepsi og har blandt andet vist at personer med epilepsi i gennemsnit har 6,6 færre år på arbejdsmarkedet sammenlignet med den generelle befolkning

ay affect the chances
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eople with epilepsy
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[1 12] In an Australian
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ed productivity loss,
and found that PALYs were reduced by 25.8% for epilepsy.[12] This study, however, did not account for absence due to psychiatric disorders or other common comorbidities of epilepsy and relied on aggregated data, which necessitated assumptions

the unpredictable nature of seizures may lead to substantial employment disadvantage from stigma, self-imposed restrictions, job requirements that limit occupational possibilities, formal sanctions, and physical, emotional and cognitive consequences

JAMA Neurology | Original Investigation

Prenatal Exposure to Antiseizure Medication and Incidence of Childhood- and Adolescence-Onset Psychiatric Disorders

Julie Werenberg Dreier, PhD; Marte-Helene Bjørk, PhD; Silje Alvestad, PhD; Mika Gissler, PhD; Jannicke Igland, PhD; Maarit K. Leinonen, PhD; Yuelian Sun, PhD; Helga Zoega, PhD; Jacqueline M. Cohen, PhD; Kari Furu, PhD; Torbjörn Tomson, PhD; Jakob Christensen, DrMedSci

IMPORTANCE Prenatal antiseizure medication (ASM) exposure has been associated with adverse early neurodevelopment, but associations with a wider range of psychiatric end points have not been studied.

OBJECTIVE To examine the association between prenatal exposure to ASM with a spectrum of psychiatric disorders in childhood and adolescence in children of mothers with epilepsy.

DESIGN, SETTING, AND PARTICIPANTS This prospective, population-based register study assessed 4 546 605 singleton children born alive in Denmark, Finland, Iceland, Norway, and Sweden from January 1, 1996, to December 31, 2017. Of the 4 546 605 children, 54 953 with chromosomal disorders or uncertain birth characteristics were excluded, and 38 661 children of mothers with epilepsy were identified. Data analysis was performed from August 2021 to January 2023.

EXPOSURES Prenatal exposure to ASM was defined as maternal prescription fills from 30 days before the first day of the last menstrual period until birth.

MAIN OUTCOMES AND MEASURES The main outcome measure was diagnosis of psychiatric disorders (a combined end point and 13 individual disorders). Estimated adjusted hazard ratios (
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Multimedia
Supplemental content

Vi kan undersøge hvilke former for epilepsi-medicin der er sikrest at bruge under graviditeten, og har blandt andet vist at både valproat, men også topiramat ser ud til at være skadelige for barnet.

ffiliations: Author affiliations are listed at the end of this article.

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Original research

Prevalence of epilepsy: a population-based cohort study in Denmark with comparison to Global Burden of Disease (GBD) prevalence estimates

Jakob Christensen [1,2] Betina B Trabjerg,[3,4] Ryan G Wagner,[5] Charles R Newton,[6,7] Churl-Su Kwon,[8] Kari Modalsli Aaberg,[9] Eugen Trinka,[10,11,12] Samuel Wiebe [13] Judith Helen Cross,[14] Håkon Magne Vegrim,[15] Theo Vos,[16] Jaimie Steinmetz,[16] Julie Werenberg Dreier[3,4]

ABSTRACT

Background The Global Burden of Disease Study (GBD) produces prevalence estimates for 'idiopathic epilepsy' (ie, of unknown aetiology) and 'secondary epilepsy' (ie, with known aetiology) but does not report prevalence by underlying aetiologies for 'secondary epilepsy'.

Methods We used nationwide, population-based register data from Denmark to identify underlying causes of epilepsy and their contribution to prevalence of 'secondary epilepsy' and compared with global prevalence data from GBD 2019. We identified all persons with a hospital-based epilepsy diagnosis and a filled prescription for antiseizure medication between 1 January 2009 and 31 December 2018. Epilepsy was
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estimated as sequelae (consequences) of underlying diseases.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ The 'total epilepsy' prevalence is the sum of 'idiopathic epilepsy' (ie, in this context without known underlying cause) and 'secondary epilepsy' (ie, with known underlying cause).
⇒ Prevalence estimates of 'total epilepsy' and epilepsy subtypes vary with age, sex and underlying cause of epilepsy.
⇒ The contribution of specific underlying causes to the prevalence of 'secondary epilepsy' and their alignment with, and impact on, Global Burden of Disease (GBD) estimates of epilepsy are not known.

Vi kan bestemme forekomsten af epilepsi på landsplan, hvilket er vigtigt for sundhedspolitiske diskussioner og prioriteringer i sundhedsvæsenet

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ In future studies of the burden of epilepsy, it would be advisable to explicitly include all types of epilepsy, including 'secondary epilepsy', currently considered a sequela (consequence) of underlying diseases.
⇒ The findings have significant implications for healthcare planning and resource allocation.

INTRODUCTION

Epilepsy is a disorder of the brain characterised by an enduring predisposition to generate epileptic seizures and by the neurobiological, cognitive, psychological and social consequences of this condition.[1] Epilepsy may result from an underlying cause (eg, stroke or traumatic brain injury); in such cases, the epilepsy may be considered secondary to the underlying aetiology ('secondary epilepsy'. It is not always possible to identify an underlying aetiology of epilepsy in which case the epilepsy

Epilepsiforskning ved Neurologisk Afdeling på OUH

Prof. Christoph Beier

Region Syddanmark

OUH
Odense
Universitetshospital

Tre videnskabelige fokusområder

Transition

Epilepsy & Behavior 155 (2024) 109780

Contents lists available at ScienceDirect

Epilepsy & Behavior

journal homepage: www.elsevier.com/locate/yebeh

Being an adolescent with epilepsy during the transition from pediatric to adult hospital care: A qualitative descriptive study

Anthony C. Smith, Malene Kaas Larsen

ABSTRACT

Keywords: Adolescence Epilepsy Patient perspectives Qualitative research

Background: The transition from pediatric to adult care is challenging for adolescent patients despite numerous recommendations in recent decades. However, the perspective of the patients is sparsely investigated.
Aims: To explore the experiences and needs of adolescents with epilepsy (AWE) during the transition from pediatric to adult hospital care.
Results: Three themes were identified: (1) Navigating epilepsy in everyday life, (2) the difficult balance between appointments,
Conclusions: This study highlights the vulnerability and challenges of AWEs transitioning to adult care. Overall, AWEs seek understanding, acceptance, and autonomy in managing their epilepsy and transitioning to adult care. Their experiences underscore the importance of holistic support and communication in healthcare settings. A concerted effort from healthcare professionals (HCP) is necessary to foster the recognition of AWEs as individuals with distinct personalities, needs, and capabilities.

1. Introduction

This study focuses on adolescents with epilepsy experiences and expressed needs during the transition from pediatric to adult hospital care. Worldwide, epilepsy is the most common neurological condition in adolescence, with an estimated prevalence rate of five per 1,000 population and an incidence of approximately five to seven cases per 10,000 children [1,2]. Living with epilepsy in adolescence is more than dealing with recurrent, involuntary, and unpredictable seizures. The condition also has implications beyond physical effects, including emotional well-being, social inclusion, quality of life, and care [3–7]. Epilepsy in adolescence can be associated with various difficulties and symptoms, including anxiety, depression, low self-esteem, comorbidities, learning difficulties, executive dysfunction, and behavioral problems [8–10].

Abbreviations: AWE, adolescents with epilepsy; HCP, healthcare professional.
* Corresponding author at: Department of Neurology, Odense University Hospital, Odense, Denmark.
E-mail address: ole.a.hansen@rsyd.dk (O. Ahldgaard Hansen).

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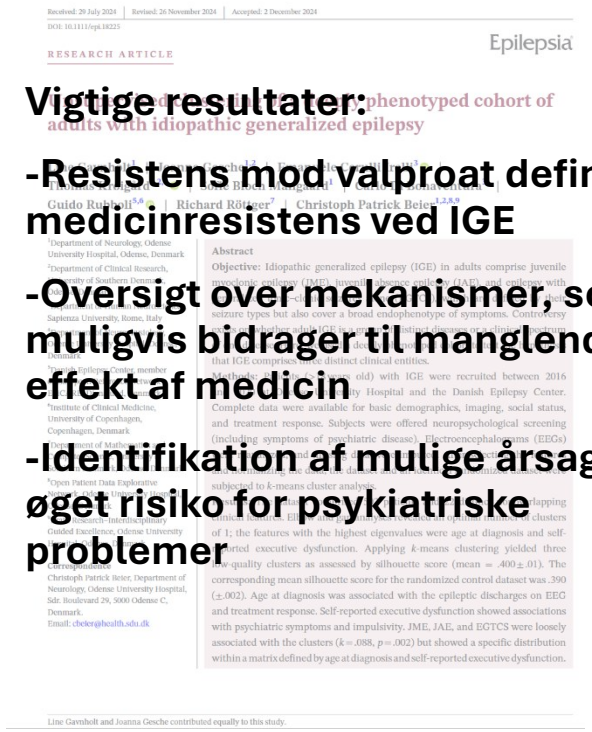
1525-5050/© 2024 The Author(s). Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Vigtige resultater:

-Beskrevet og analyseret udfordringer med transition i unge på et generelt plan og af Fynske patienter.

-Oprettet et transitionsforløb med udgangpunkt vores patienters behov

Idiopatisk generaliseret epilepsi


Received: 29 July 2024 | Revised: 26 November 2024 | Accepted: 2 December 2024

DOI: 10.1111/epi.18225

RESEARCH ARTICLE

Epilepsia

phenotyped cohort of adults with idiopathic generalized epilepsy

Guido Rubboli[3,6] | Richard Rötzer[7] | Christoph Patrick Beier[1,2,8,9]

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[2]Department of Clinical Research, University of Southern Denmark, Odense, Denmark
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Email: cbeier@health.sdu.dk

Abstract

Objective: Idiopathic generalized epilepsy (IGE) in adults comprise juvenile myoclonic epilepsy (JME), juvenile absence epilepsy (JAE), and epilepsy with seizure types but also cover a broad clinical phenotype of symptoms. Controversy

that IGE comprises three distinct clinical entities.

old) with IGE were recruited between 2016 ly Hospital and the Danish Epilepsy Center. Complete data were available for basic demographics, imaging, social status, and treatment response. Subjects were offered neuropsychological screening (including symptoms of psychiatric disease). Electroencephalograms (EEGs)

subjected to *k*-means cluster analysis.

of 1; the features with the highest eigenvalues were age at diagnosis and self-reported executive dysfunction. Applying *k*-means clustering yielded three clusters of adequate quality as assessed by silhouette score (mean = .400 ± .01). The corresponding mean silhouette score for the randomized control dataset was .390 (±.002). Age at diagnosis was associated with the epileptic discharges on EEG and treatment response. Self-reported executive dysfunction showed associations with psychiatric symptoms and impulsivity. JME, JAE, and EGTCS were loosely associated with the clusters ($k = .088$, $p = .002$) but showed a specific distribution within a matrix defined by age at diagnosis and self-reported executive dysfunction.

Line Gavnholt and Joanna Gesche contributed equally to this study.

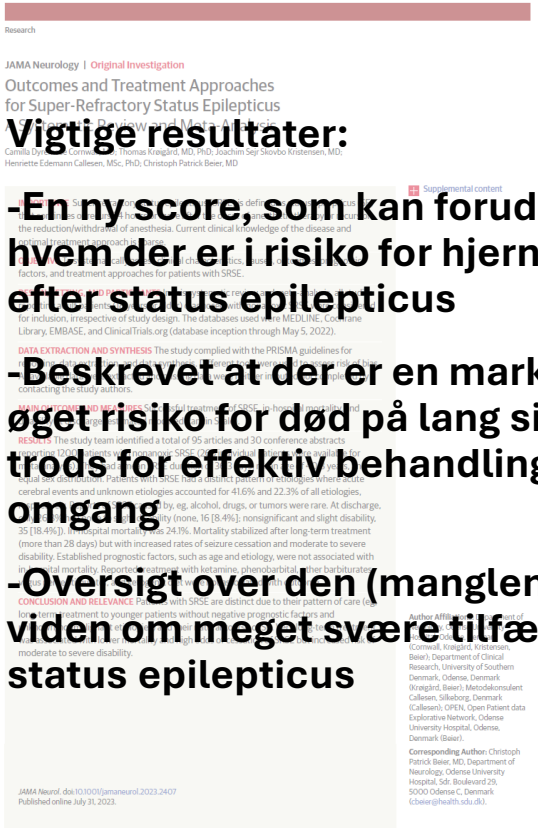
Vigtige resultater:

-Resistens mod valproat definerer medicinresistens ved IGE

-Oversigt over mekanismer, som muligvis bidrager til manglende effekt af medicin

-Identifikation af mulige årsager til øget risiko for psykiatriske problemer

Status epilepticus


Research

JAMA Neurology | Original Investigation

Outcomes and Treatment Approaches for Super-Refractory Status Epilepticus

Camilla Dyg Conwell, Thomas Kreigård, MD, PhD; Joachim Sejr Skovbo Kristensen, MD; Henriette Edemann Callesen, MSc, PhD; Christoph Patrick Beier, MD

Supplemental content

the reduction/withdrawal of anesthesia. Current clinical knowledge of the disease and

factors, and treatment approaches for patients with SRSE.

for inclusion, irrespective of study design. The databases used were MEDLINE, Cochrane Library, EMBASE, and ClinicalTrials.org (database inception through May 5, 2022).

DATA EXTRACTION AND SYNTHESIS The study complied with the PRISMA guidelines for

contacting the study authors.

RESULTS The study team identified a total of 95 articles and 30 conference abstracts

cerebral events and unknown etiologies accounted for 41.6% and 22.3% of all etiologies,

by, eg, alcohol, drugs, or tumors were rare. At discharge,

ty (none, 16 [8.4%]; nonsignificant and slight disability.

35 [18.4%]). In-hospital mortality was 24.1%. Mortality stabilized after long-term treatment (more than 28 days) but with increased rates of seizure cessation and moderate to severe disability. Established prognostic factors, such as age and etiology, were not associated with

CONCLUSION AND RELEVANCE

moderate to severe disability.

JAMA Neurol. doi:10.1001/jamaneurol.2023.2407
Published online July 31, 2023.

(Conwell, Kreigård, Kristensen, Beier); Department of Clinical Research, University of Southern Denmark, Odense, Denmark (Kreigård, Beier); Metodekonsulent Callesen, Silkeborg, Denmark (Callesen); OPEN, Open Patient data Explorative Network, Odense University Hospital, Odense, Denmark (Beier).

Corresponding Author: Christoph Patrick Beier, MD, Department of Neurology, Odense University Hospital, Sdr. Boulevard 29, 5000 Odense C, Denmark (cbeier@health.sdu.dk).

Vigtige resultater:

-En ny score, som kan forudse, hvem der er i risiko for hjerneskader efter status epilepticus

-Beskrevet at der er en markant øget risiko for død på lang sigt, til trods for effektiv behandling i første omgang

-Oversigt over den (manglende) viden om meget svære tilfælde af status epilepticus

Tre videnskabelige fokus områder

Transition

Aktuelle projekter:

-Evaluering af det nye transitionsambulatorie

-Systematisk psykiatrisk screening af patienterne i transitionsforløbet

-Nye teknologiske løsninger til et optimeret transitionsforløb

Idiopatisk generaliseret epilepsi

Aktuelle projekter:

-Hvorfor har patienter med IGE så høj en risiko for psykiatriske problemer?

-Kan man vokse sig fra sin IGE som voksen?

-Er det muligt at forhindre psykiatriske symptomer før de optræder?

Status epilepticus

Aktuelle projekter:

-Hvem får en hjerneskade efter status epilepticus og hvorfor?

-Kan vi forhindre hjerneskader efter status epilepticus?

-Hvordan kan vi optimere behandlingen for at mindske risikoen for skader?

Epilepsiforskning ved Neurofysiologisk Klinik på Epilepsihospitalet

Prof. Sandor Beniczky

FILADELFIA

Videnskablige fokusområder

- EpiPick: en online algoritme der kan hjælpe lægerne med at finde den optimale behandling - skræddersyet til patienten

Received: 8 November 2021 | Accepted: 8 November 2021
DOI: 10.1111/epi.17129

Epilepsia®

LETTER

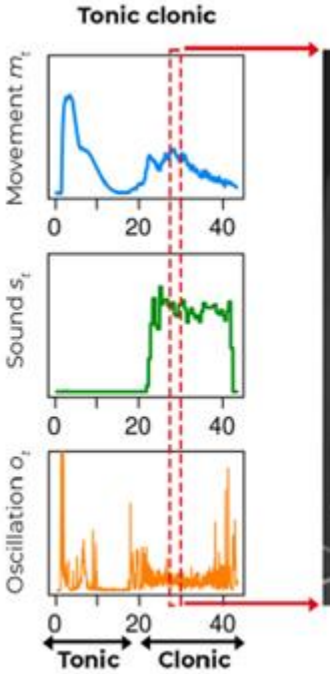
The EpiPick algorithm to select appropriate antiseizure medications in patients with epilepsy: Validation studies and updates

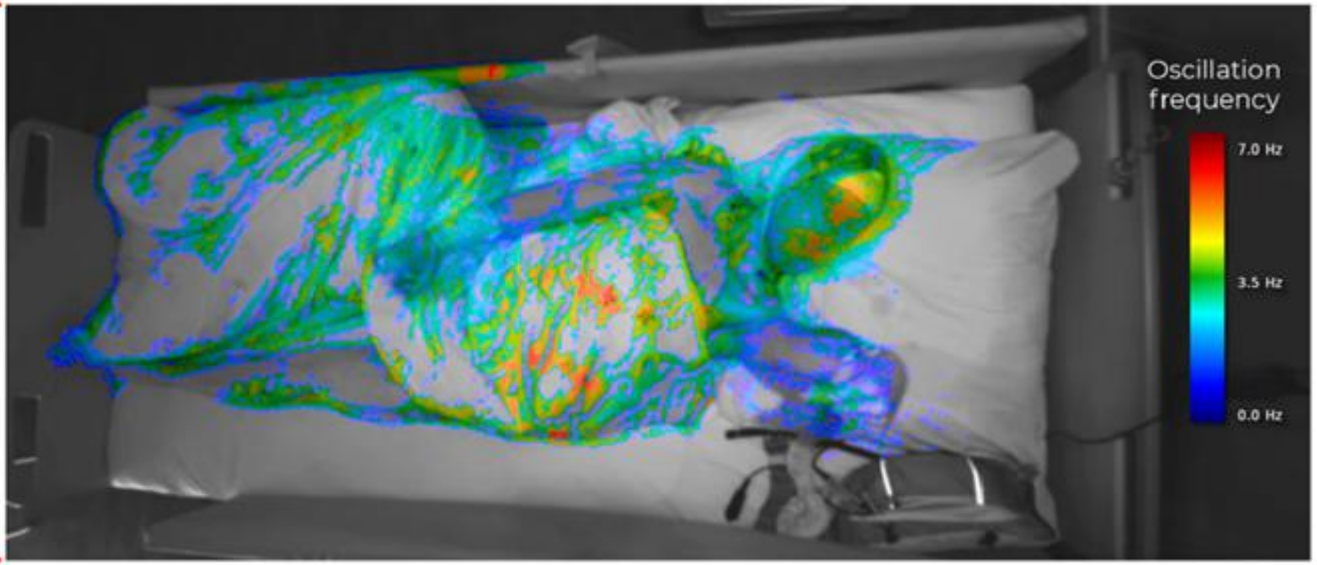
- SCORE-AI: kunstig intelligens for at hjælpe eksperterne med at bedømme EEGerne

Videnskablige fokusområder

- Hjemme-video-EEG monitorering: patientnær diagnostik af epileptiske anfald

- UNEEG, EpicareFree og Nelli: automatisk detektion af epileptiske anfald ved mobilt udstyr og video





FILADELFIA

Klassifikation af epileptiske anfald

Received: 19 August 2024 | Revised: 13 February 2025 | Accepted: 14 February 2025

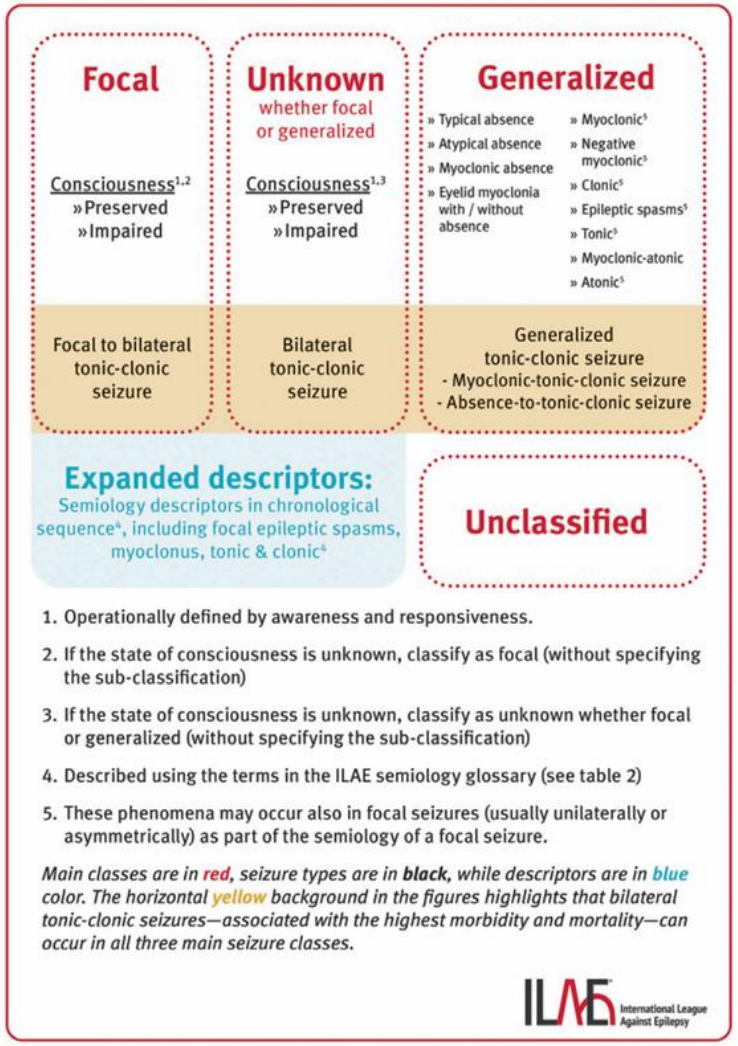
DOI: 10.1111/epi.18338

Epilepsia®

SPECIAL REPORT

Updated classification of epileptic seizures: Position paper of the International League Against Epilepsy

Sándor Beniczky[1,2,3] | Eugen Trinka[4,5,6] | Elaine Wirrell[7] | Fatema Abdulla[8] | Raidah Al Baradie[9] | Mario Alonso Vanegas[10] | Stéphane Auvin[11,12,13] | Mamta Bhushan Singh[14] | Hal Blumenfeld[15] | Alicia Bogacz Fressola[16] | Roberto Caraballo[17] | Mar Carreno[18,19] | Fernando Cendes[20,21] | Augustina Charway[22] | Mark Cook[23] | Dana Craiu[24,25] | Birinus Ezeala-Adikaibe[26,27] | Birgit Frauscher[28,29] | Jacqueline French[30] | M. V. Gule[31,32] | Norimichi Higurashi[33] | Akio Ikeda[34] | Floor E. Jansen[35] | Barbara Jobst[36] | Philippe Kahane[37] | Nirmeen Kishk[38] | Ching Soong Khoo[39,40,41] | Kollencheri Puthenveettil Vinayan[42] | Lieven Lagae[43] | Kheng-Seang Lim[44] | Angelica Lizcano[45,46] | Aileen McGonigal[47] | Katerina Tanya Perez-Gosiengfiao[48,49,50] | Philippe Ryvlin[51] | Nicola Specchio[52] | Michael R. Sperling[53] | Hermann Stefan[54] | William Tatum[55] | Manjari Tripathi[56] | Elza Márcia Yacubian[57] | Samuel Wiebe[58] | Jo Wilmshurst[59] | Dong Zhou[60] | J. Helen Cross[61]



SDU

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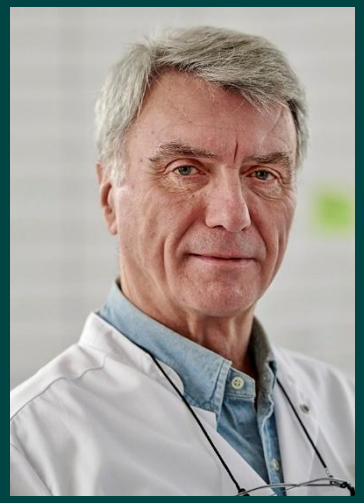
Epilepsiforskning ved Genetisk Afdeling på Epilepsihospitalet

Prof. Rikke Møller

Prof. Elena Gardella



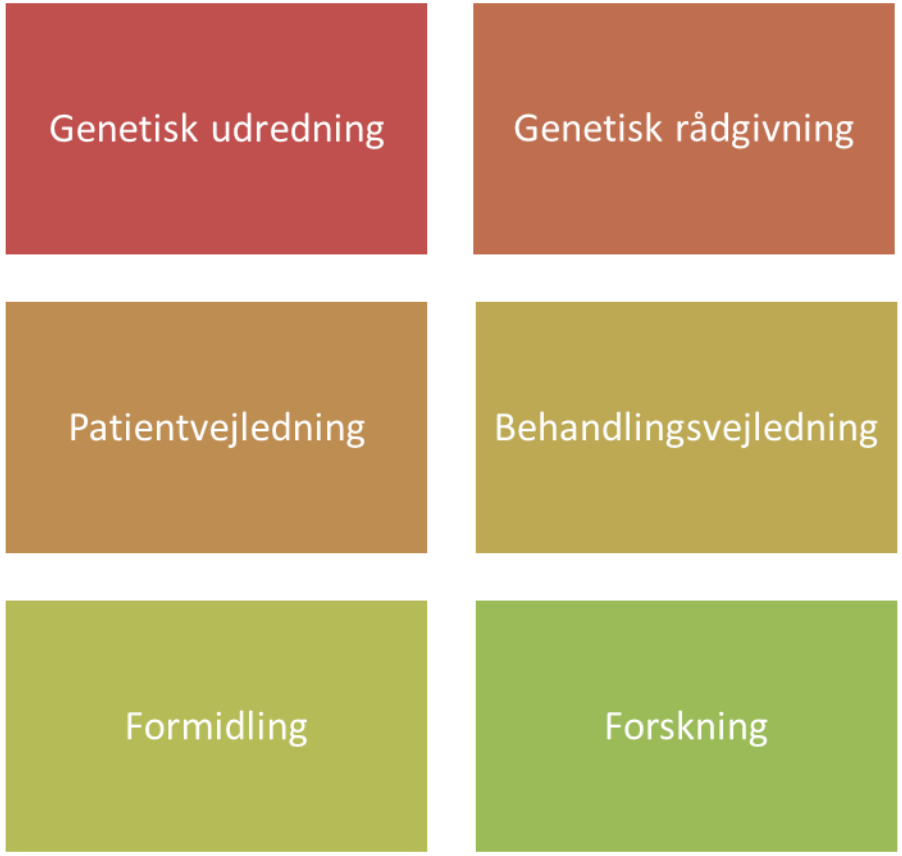
Prof. Guido Rubboli

FILADELFIA

Afdeling for epilepsigenetik og personlig medicin

Vores vision:

- At udredning, diagnosticering, rådgivning, forskning, og vidensdeling kan medvirke til en bedre livskvalitet, samt mere målrettet behandling af personer med genetisk betinget epilepsi



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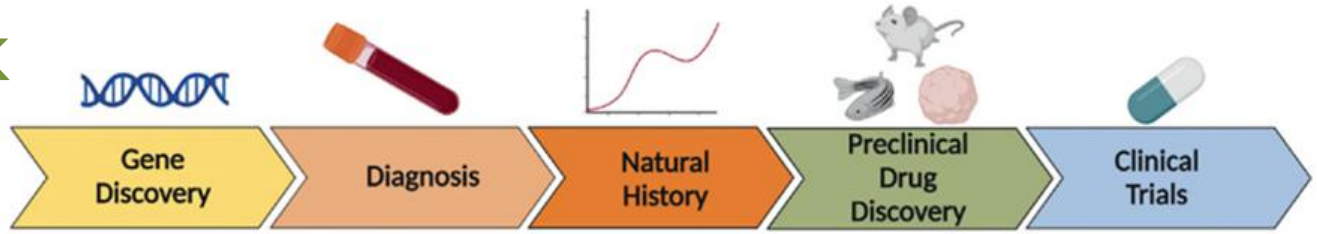
Epilepsigenetik



Fokusområde 2:
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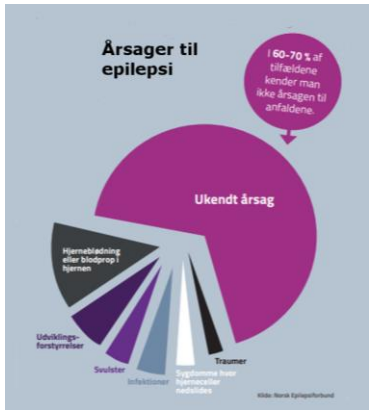
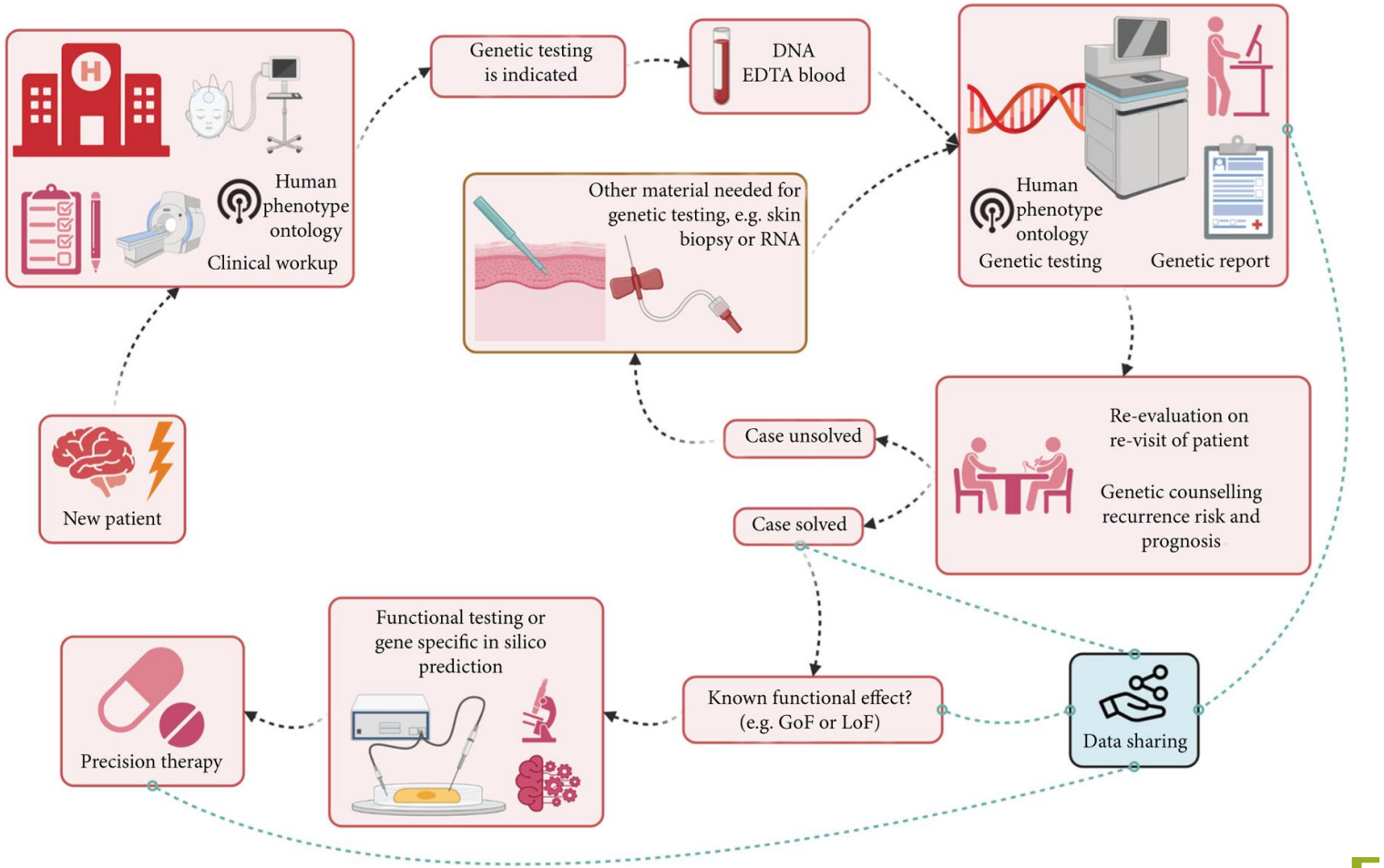




Fokusområde 1:
Diagnostik

Fokusområde 3:
Præcisionsmedicin

SDU

FILADELFIA

Hvornår skal genetisk testing overvejes?

Genetisk testning er anbefalet anbefalet ved[1]:

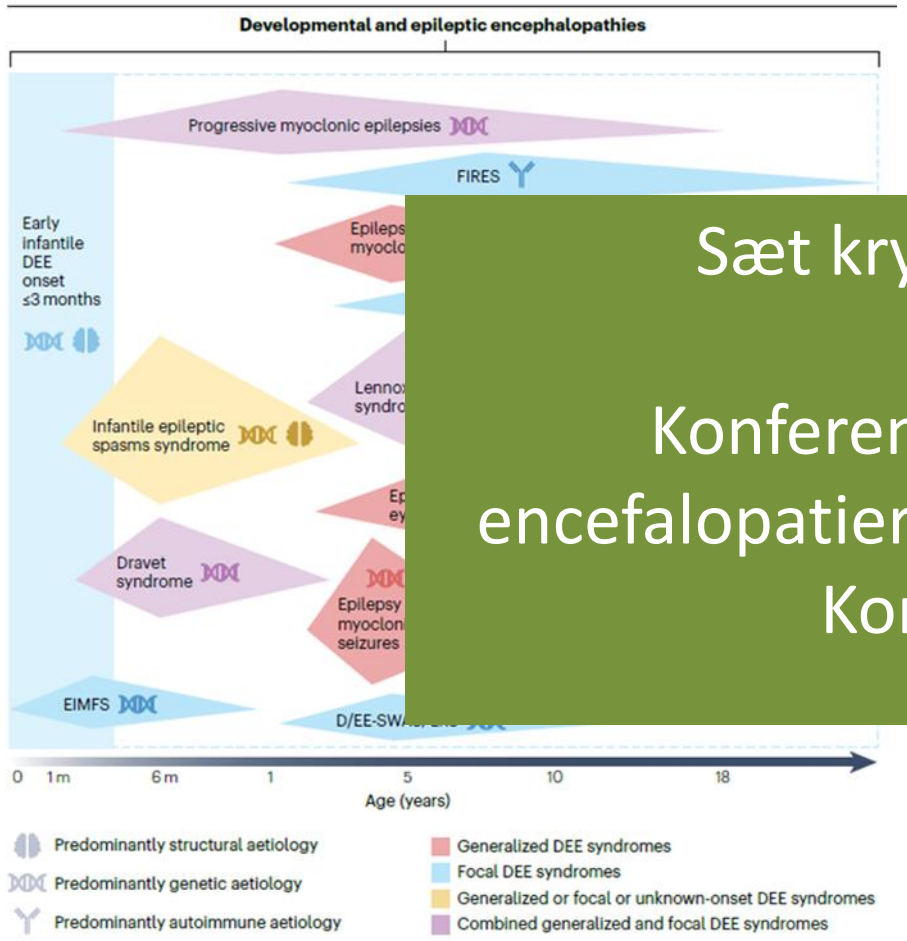
- Tidligt indsættende epilepsi (<4år)
- Epilepsi + udviklingshæmning, autisme eller anden neurologisk komorbiditet
- Specifikke familiære fokale epilepsisyndromer

Genetisk testning bør overvejes ved[1] :

- MR-negativ behandlingsrefraktær fokal epilepsi som led i kirurgiudredning
- Epilepsi som følge af strukturelle hjernemisdannelser

Krey I, *et al.* Epileptic Disorders 2022;24:765–86;

Udviklingsmæssige og epileptiske encefalopatier

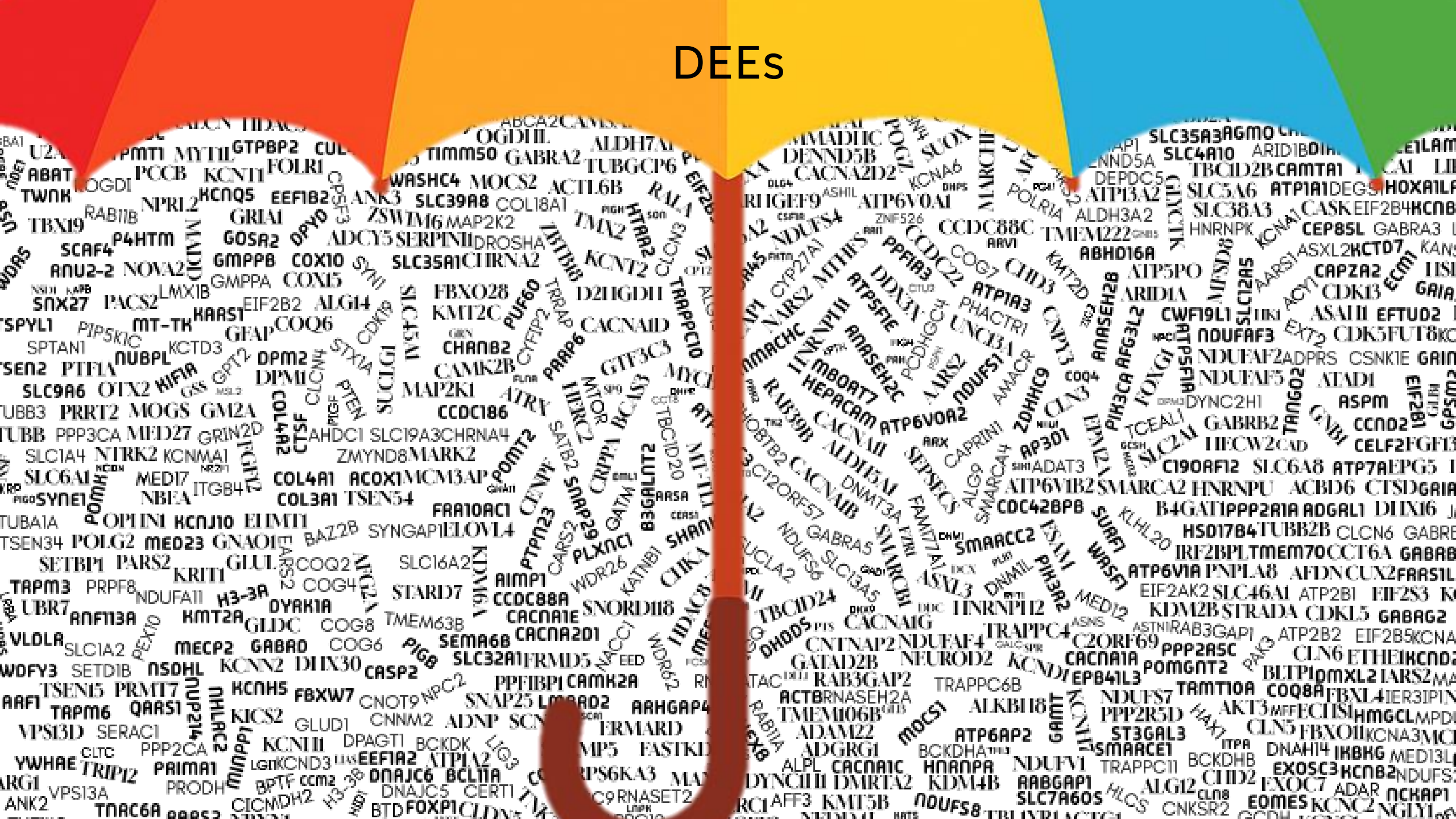


Sæt kryds i kalenderen!

Konference om epileptiske encefalopatier den 2/4-2027 i Odense Kongrescenter!

Adam Strzelczyk & Susanne Schubert-Bast, CNS drugs, 2022

DEEs


SCN1A
SCN2A
SCN8A
SCN1B
SCN2B
KCNQ2
KCNQ3
KCNT1
KCNT2
KCNA2
KCNB1
KCNC1
KCNC2
KCNH1
KCNH5
KCNJ10
KCNJ11
KCNN2
KCNV1
CACNA1A
CACNA1B
CACNA1C
CACNA1E
CACNA1G
CACNA2D1
CACNA2D2
CACNB4
HCN1
HCN2
GABRA1
GABRA2
GABRA5
GABRB2
GABRB3
GABRG2
GRIN1
GRIN2A
GRIN2B
GRIA1
GRIA2
GRIA3
GRIA4
GRIK2
GRM1
GRM5
SLC1A2
SLC1A3
SLC6A1
SLC6A8
SLC12A5
SLC13A5
SLC16A2
SLC25A22
SLC35A2
SLC35A3
SLC38A3
SLC39A8
SLC4A10
SLC5A6
SLC5A7
SLC9A6
SLC32A1
SLC7A6OS
ATP1A1
ATP1A2
ATP1A3
ATP2B1
ATP2B2
ATP6AP2
ATP6V0A1
ATP6V1A
ATP6V1B2
ATP6VOA2
ATP7A
ATP13A2
ATP5PO
ATP5F1A
ATP5PF
ATP8A2
ATP2B4
ATP1B3
ATP1A3
ATP6VOA1
ATP6VOB
ATP6VOC
ATP6VOD1
ATP6VOE1
ATP5PD
ATP5PB
ATP5PF
ATP5PO
ATP5F1A
ATP5F1B
ATP5F1C
ATP5F1D
ATP5F1E
ATP5MC1
ATP5MC2
ATP5MC3
ATP5ME
ATP5MF
ATP5MG
ATP5MPL
ATP5IF1
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ATP5PD
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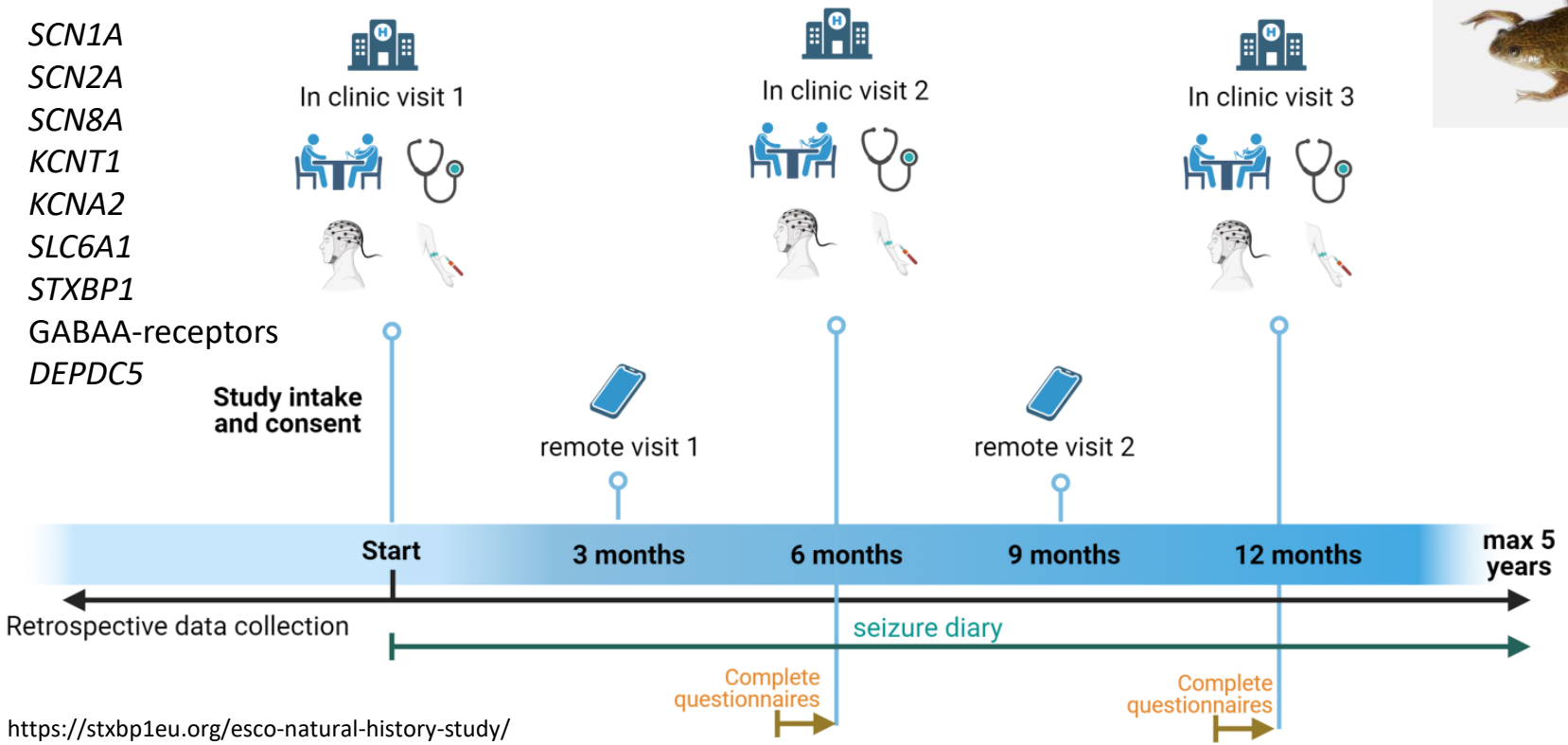
ATP6VOE1
ATP6AP2
ATP6V1A
ATP6V1B2
ATP6VOA2
ATP7A
ATP13A2
ATP5PO
ATP5F1A
ATP5PF

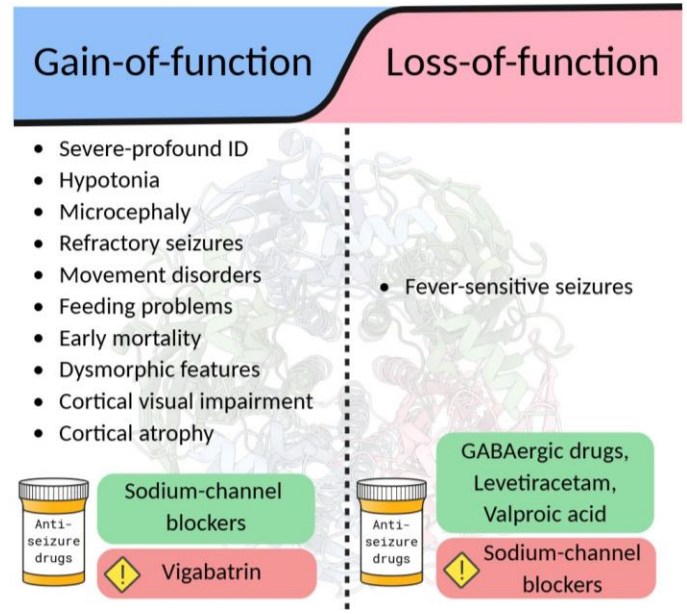
Forskning i genetiske epilepsier

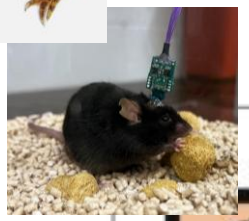
- Elektroklinisk karakterisering; genotype-fænotype korrelationer; EEG biomarkører; farmako-respons; sygdomsmekanismer

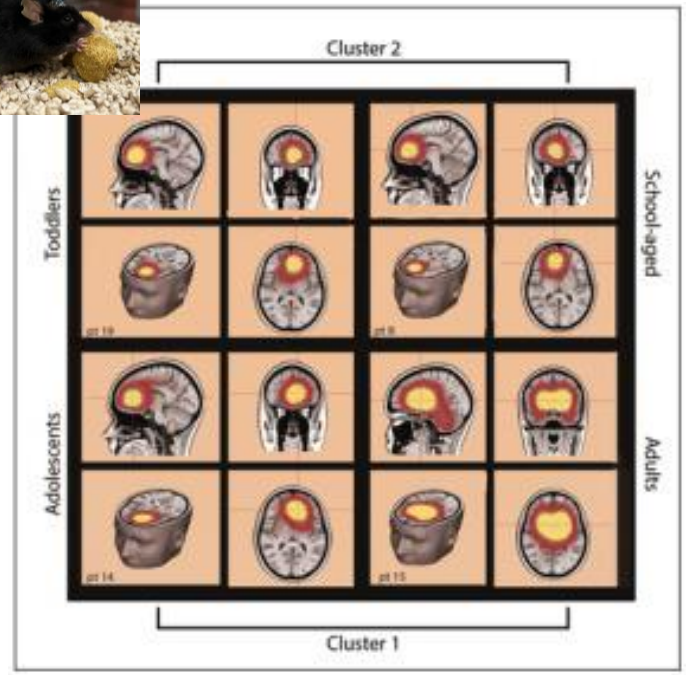
SCN1A
SCN2A
SCN8A
KCNT1
KCNA2
SLC6A1
STXBP1
GABAA-receptors
DEPDC5



https://stxbp1eu.org/esco-natural-history-study/



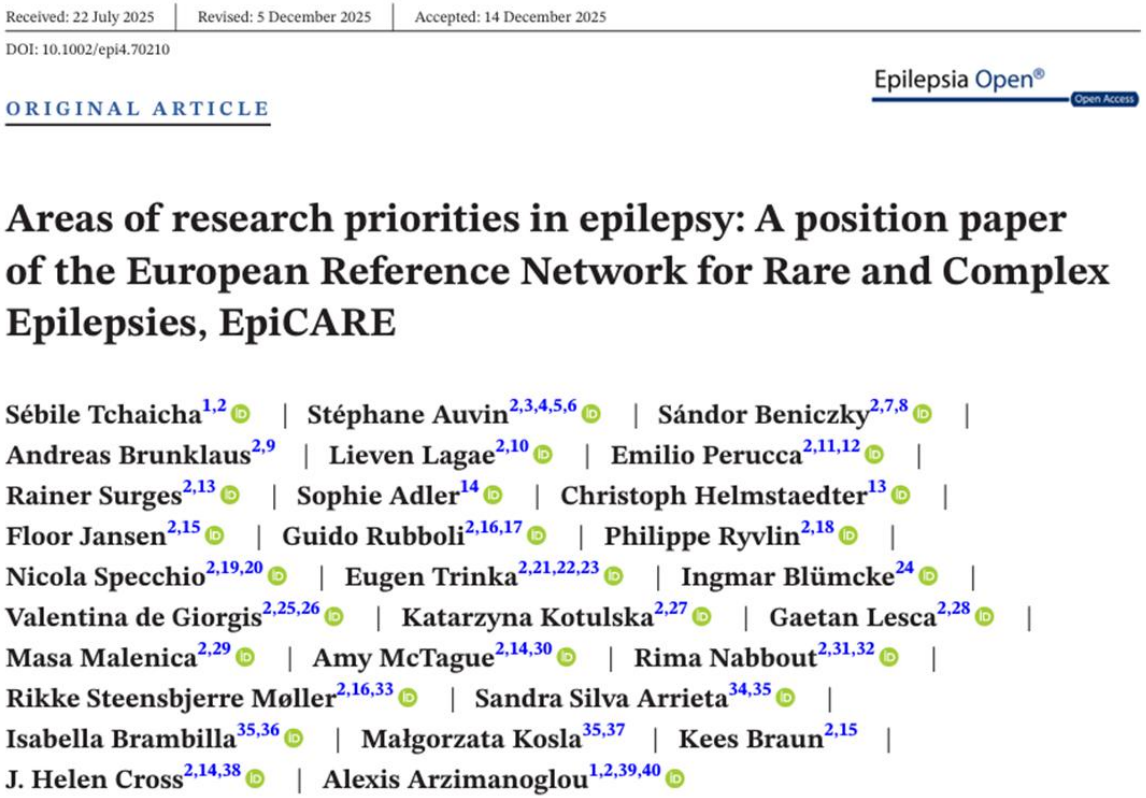




Epilepsiforskning udenfor Danmarks grænser

FILADELFIA

Fokusområder



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Epilepsia Open® Open Access

ORIGINAL ARTICLE

Areas of research priorities in epilepsy: A position paper of the European Reference Network for Rare and Complex Epilepsies, EpiCARE

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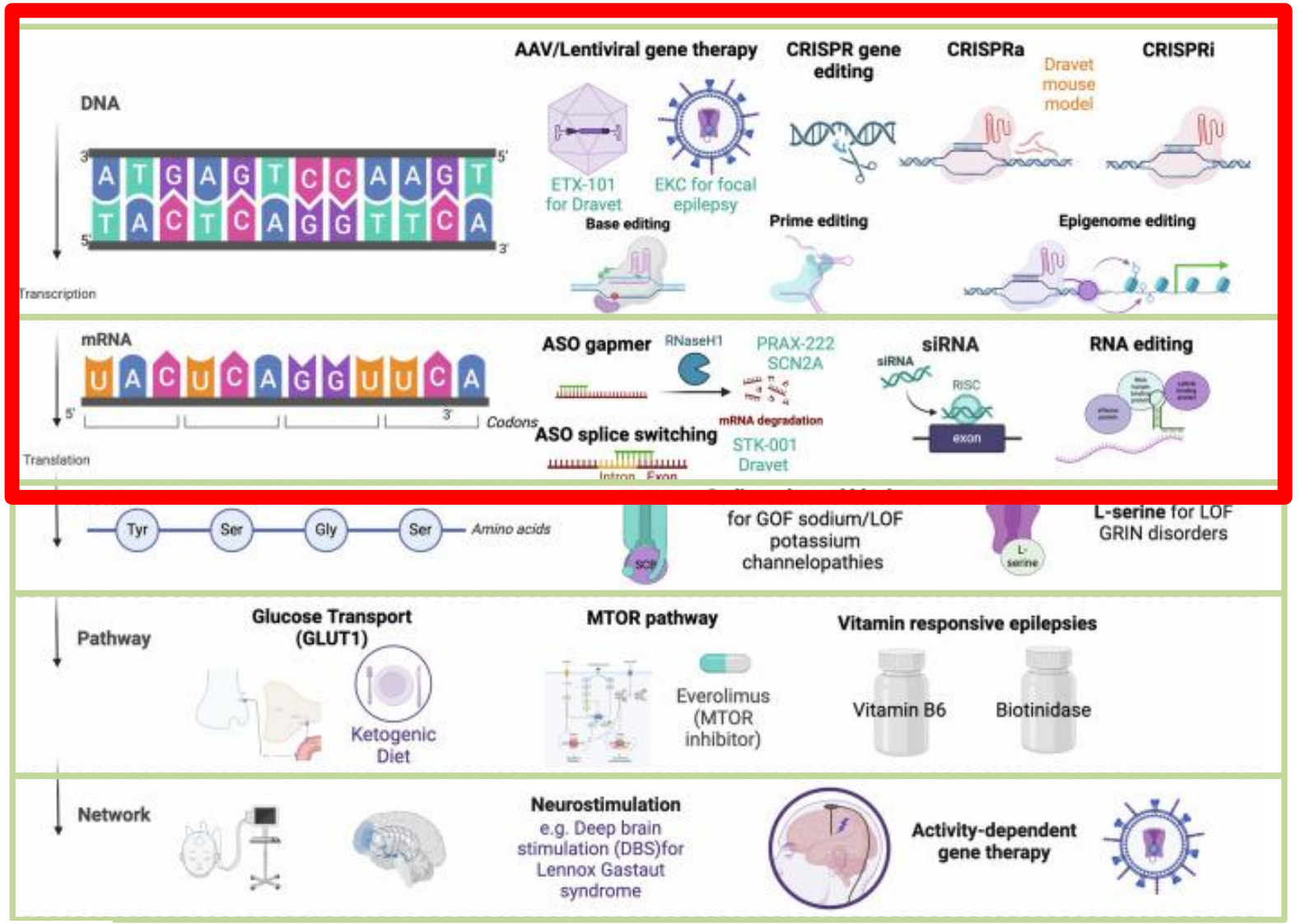
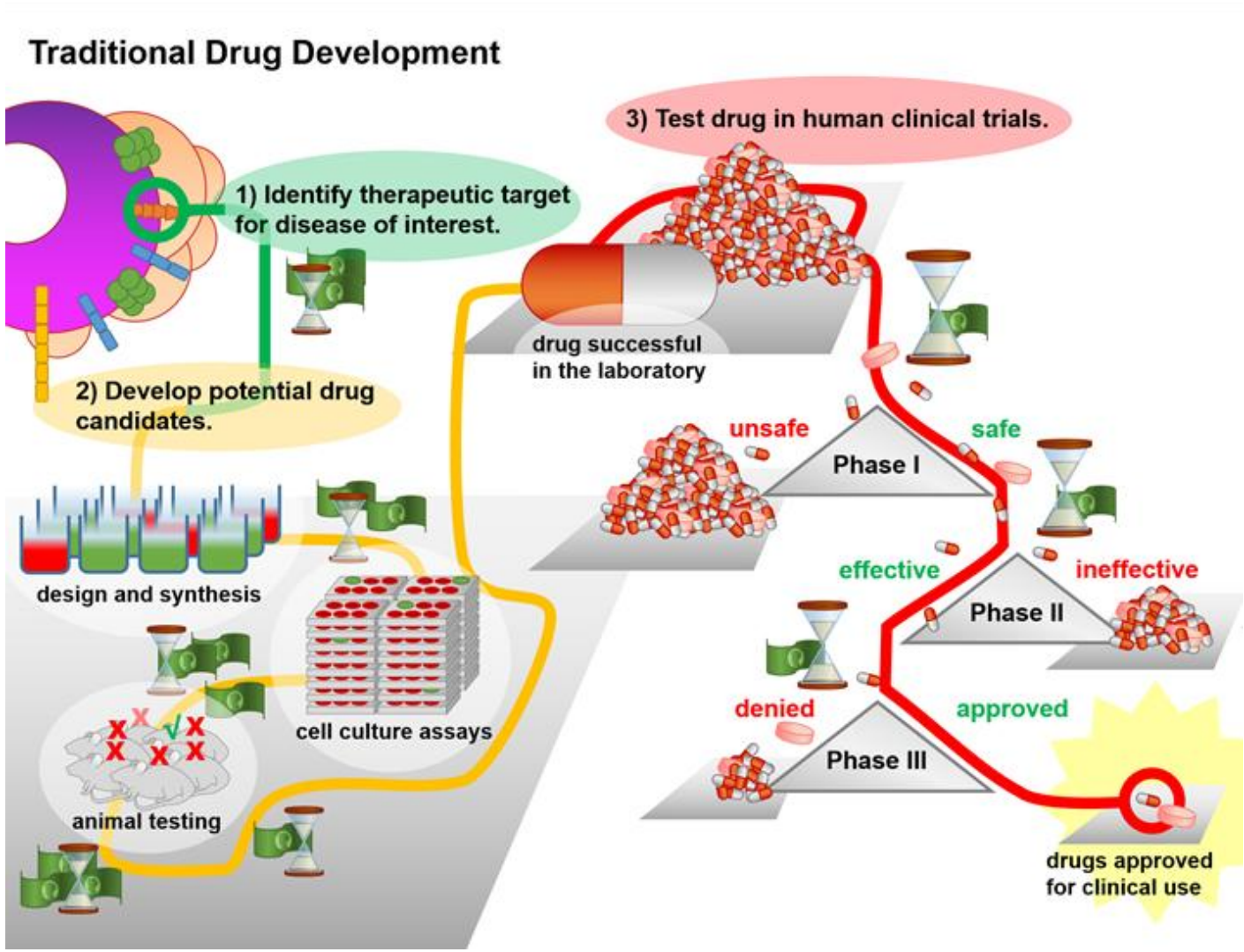
- Forebyggelse
- Genetik og målrettede behandlinger
- Epilepsikirurgi
- Nye måder at designe og evaluere effekten af kliniske forsøg på
- Brug af kunstig intelligens
- Komorbiditeter og tidlig død

Præcisionsmedicin



Howell et al. NPJ Genom Med., 2025

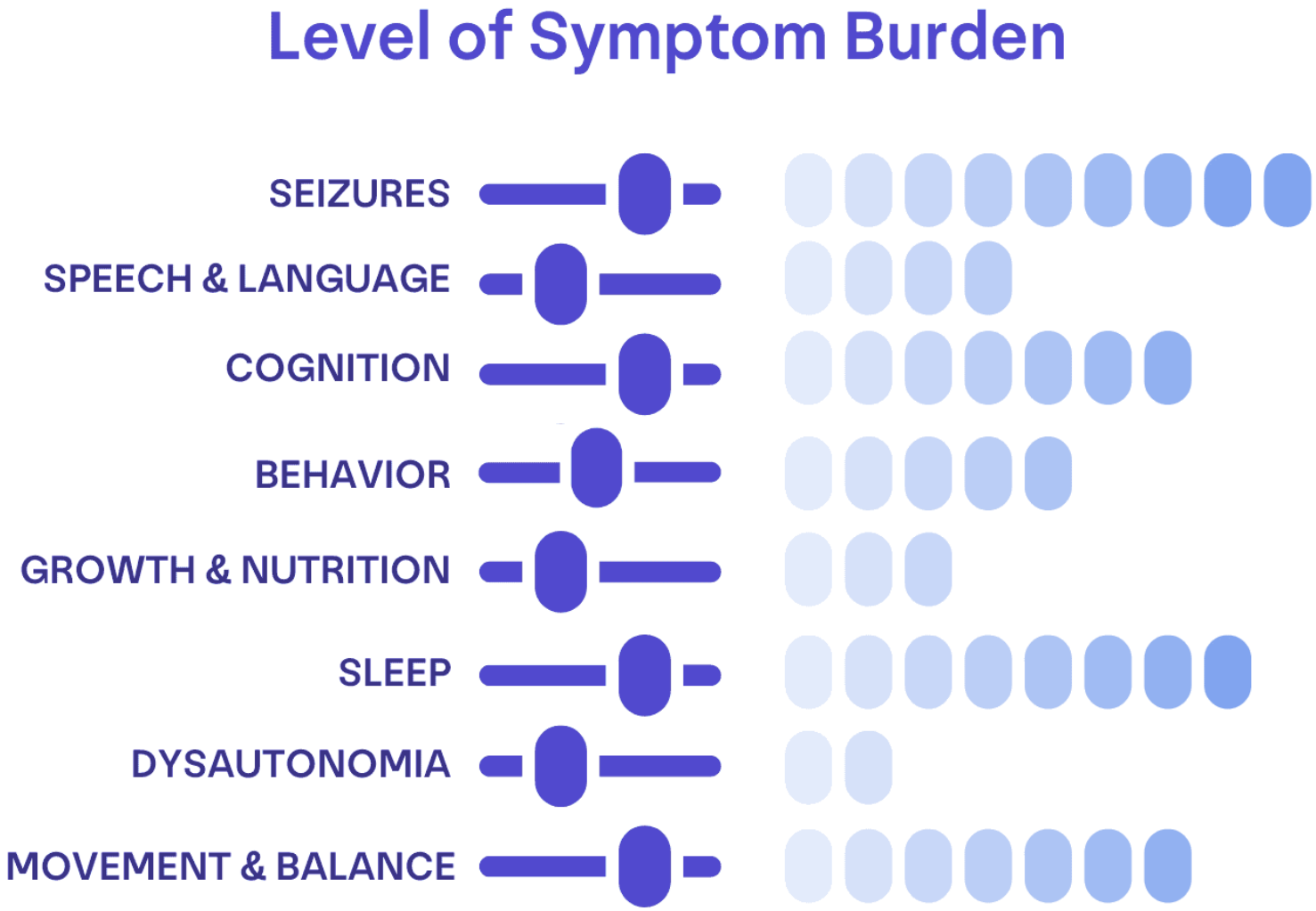
Udvikling af et nyt lægemiddel: 10-15 år/ 9 milliarder kr



>90% kommer aldrig på markedet

https://i0.wp.com/sitn.hms.harvard.edu/wp-content/uploads/2016/05/05-02-2016_Figure1_v1.png

Dravet syndrom



https://dravetfoundation.org/what-is-dravet-syndrome/comorbidities/

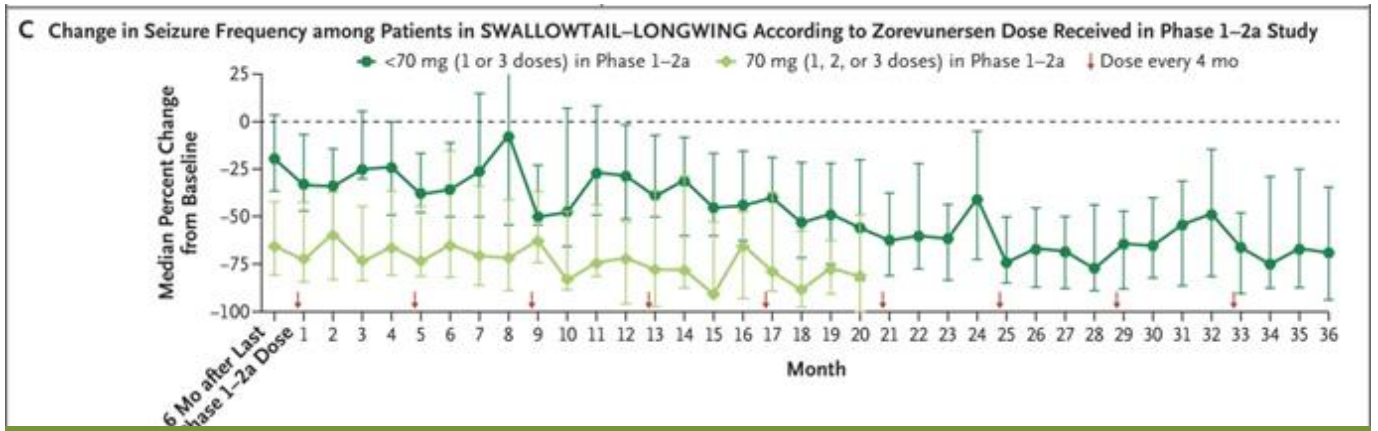
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

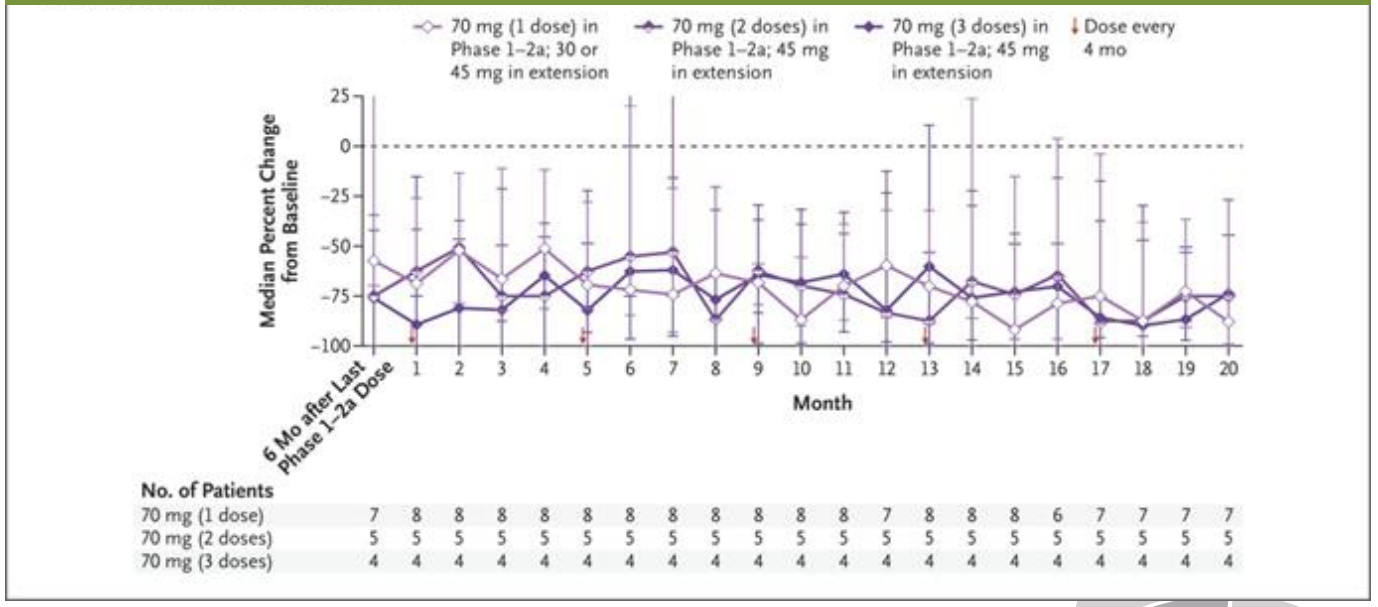
Zorevunersen in Children and Adolescents with Dravet Syndrome

L. Laux,[1] J. Sullivan,[2] M.S. Perry,[3] A. Brunklaus,[4] A. Desurkar,[5] J.M. Schreiber,[6] C.M. Roberts,[7] K.G. Knupp,[8] J.W. Wheless,[9] E.C. Wirrell,[10] P. Ventola,[11] F. Wang,[12] Meena,[12] J. Lynch,[12] K.A. Parkerson,[12] B. Ticho,[12] and J.H. Cross,[13] for the MONARCH, ADMIRAL, SWALLOWTAIL, and LONGWING Study Groups*

ABSTRACT



Mellem 58.82% og 90.91% anfaldsreduktion



Genterapi for Dravet syndrom

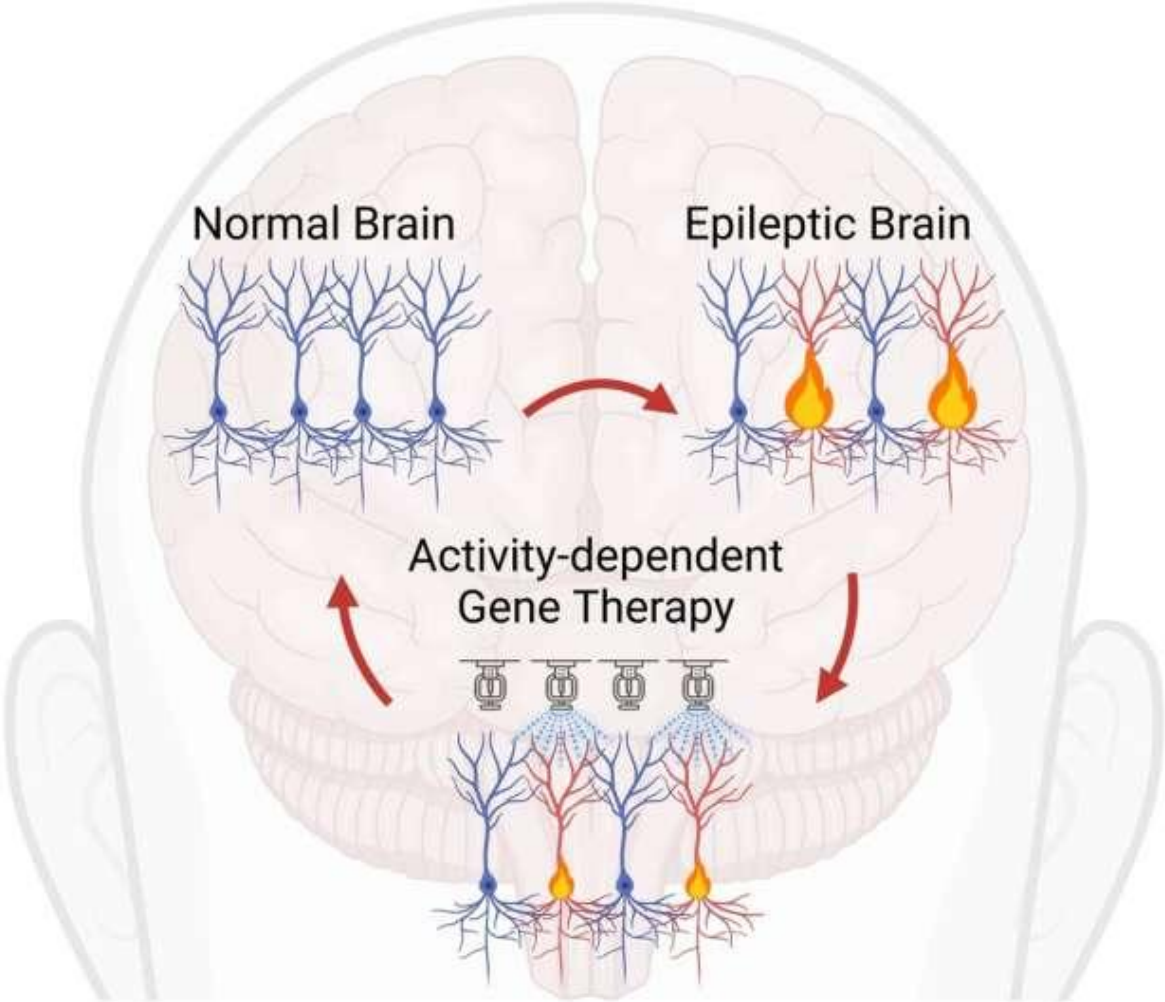
https://encoded.com/programs/etx101-for-dravet-syndrome/

Er genterapi kun for folk der har epilepsi på baggrund af en genfejl?

SDU

FILADELFIA

87% anfaldsreduktion i mus!



Qiu et al., Science, 2022

Klar til afprøvning i mennesker med svær behandlelig epilepsi i slutningen af 2026!

SDU

FILADELFIA

Opsummering

- Danmark har et stærkt forskningsmiljø inden for epilepsi med fokus på bl.a. registre, IGE, status epilepticus, transition fra barn til voksen, AI, anfaldsdetektion og genetik

- Nye teknologier og datakilder skaber bedre forståelse af sygdommen og åbner for tidligere og mere præcis diagnostik

- En genetisk diagnose kan have mange fordele:
  - Bedre forståelse af årsagen
  - Mere målrettet behandling
  - Bedre rådgivning til patienter og familier

- Genetisk testning er et vigtigt første skridt mod personlig medicin

- Skræddersyede behandlinger er i hastig udvikling
  - Giver håb om mere effektiv og individuel behandling
  - Er dog stadig kun tilgængelige for en mindre gruppe patienter

SDU

EPILEPSI FORENINGEN

FILADELFIA

Kontakt: genetics@filadelfia.dk

EPILEPSI FORENINGEN

EpiCARE

European Reference Network
for rare or low prevalence complex diseases

Network Epilepsies (ERN EpiCARE)

CURE GABA A VARIANTS

GABA A ALLIANCE

STXBP1 disorders

SCN8A ITALIA

SCN2A RELATED AUTISM & EPILEPSY
FAMILIESCN2A FOUNDATION
WWW.SCN2A.ORG

SCN8A EPILEPSY
The Cute Syndrome FOUNDATION
www.TheCuteSyndrome.com

SDU

novo nordisk fonden

LUNDBECKFONDEN

FILADELFIA