## **Complex Epilepsy 2017**

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|  | **Group Leader** Morten I. Lossius, Professor, Consultant NeurologistNational Centre for Epilepsy, OUS (mortenl@ous-hf.no) and UiO |

**Group Members**

* Marit Bjørnvold, MD/PhD, SSE
* Cecilie Johannessen Landmark, MSc/PhD, SSE and OsloMET
* Kristin Alfstad, MD/PhD, SSE
* Karl Otto Nakken, MD/PhD, SSE
* Erik Hessen, Prof dr.philos, SSE and UiO
* Magnhild Kverneland, MSc, SSE and UiO
* Kari Modalsli Aaberg, MD, SSE and UiO
* Hilde Karterud, Cand.san/PhD, SSE and UiO
* Antonia Villagran, MD, SSE and UiO
* Torleiv Svendsen, MD, SSE and UiO
* Silje Syrstad, Educationalist, UiO
* Oliver Henning, MD, SSE
* Sigrid Pedersen, MSc, SSE
* Eli B. Kyte, Clin. Neuro.Psych, SSE

**Associated group members**

* Anette Huuse Farmen, MD, Innlandet Hospital and UiO
* Marte Syvertsen, MD, Vestre Viken and UiO

**Research profile and aims**

Clinical research in patients with difficult-to-treat epilepsy, with particular focus on:

1. Characterisation of different epilepsy syndromes (genotype/phenotype)
2. Clinical pharmacology of antiepileptic drugs
3. Different diagnostic and treatment options; EEG, pharmacotherapy, surgery, VNS, diets
4. Psychosocial, psychiatric and neurocognitive aspects
5. Psychogenic non-epileptic seizures

### Ongoing projects

**PhD candidates in the UiO PhD program:**

* Hilde Karterud: “*Medically unexplained seizures: a qualitative study of the development of patients illness perceptions”*. Supervisor: Mette Bech Risør. Co-supervisor: Ole Rikard Haavet. Dissertation May 18, 2017
* Silje Syrstad: *Nocturnal epileptiform activity in EEG and language skills*. Supervisor: Solveig Alma Lyster. Co-supervisor: Marit Bjørnvold. Dissertation Dec 2017
* Kari Modalsli Aaberg: Epilepsy in young children. Supervisor: Camilla Stoltenberg. Co-supervisors: Pål Suren, Per Magnus, Richard Chin, and Morten I. Lossius
* Magnhild Kverneland: *Effect of modified Atkin’s diet in adult patients with pharmacoresistant focal epilepsy. A randomized controlled study*. Supervisor: Karl Otto Nakken. Co-supervisor: Erik Taubøll
* Antonia Villagran. *Psychiatric comorbidity in patients with psychogenic non-epileptic seizures (PNES)*. Supervisor: Morten I. Lossius. Co-supervisor: Roderick Duncan
* Torleiv Svendsen: *Tolerability and efficacy of new antiepileptic drugs*. Supervisor: Cecilie Johannessen Landmark. Co-supervisors: Ole Morten Rønning and Morten I. Lossius
* Sigrid Pedersen: *Epilepsy in Children: The Impact of the Gut Microbiota and Epigenetics in Successful Treatment of Epilepsy.* Supervisor: Kaja Kristine Selmer. Co-supervisors: Knut Rudi, Per Ole Iversen, and Benedicte Alexandra Lie

**Post doc:**

* Silje Alvestad: *“Scandinavian multi-registry study of antiepileptic drug teratogenicity: the SCAN-A study”*

**PhD-candidates not yet in the UiO PhD program:**

* Eli B. Kyte: *Impact of epilepsy surgery on cognition, psychiatry and quality of life at the commencement of aging.* Supervisor:Morten I. Lossius
* Oliver Henning: *Sexuality, depression and side effects in refractory epilepsy patients*. Supervisor: Morten I. Lossius

**PhD-candidates in the UiO PhD program, associated to the group:**

* Anette Huuse Farmen: *Effect of epilepsy and antiepileptic drugs in pregnancy: cognition, neurodevelopmental symptoms and obstetric outcome in offspring ‒ a prospective cohort study.*  Supervisor: Morten I. Lossius. Co-supervisor: Merethe Øien

**International projects:**

* “EURAP study. An International Antiepileptic Drugs and Pregnancy Registry” (International concerted Action on the Teratogenesis of Anti-epileptic Drugs) (<http://www.eurapinternational.org/>): **Silje Alvestad og Kari Mette Lillestølen**, National coordinators
* *“E-PILEPSY”* is a Pan European Project, with the primary aim of improving awareness and accessibility of surgery for epilepsy across different countries. Epilepsy surgery is an established treatment in the management of individuals with drug resistant focal epilepsy (<http://www.e-pilepsy.eu/>). **Morten I. Lossius**, associated partner
* “*Nordic prospective observational study of outcomes after rare epilepsysurgery procedures*”. **Fridny Heimsdottir**
* TRACE («*Transcutan VNS (t-VNS) for drug resistant epilepsy*»). **Oliver Henning, Konstantin Kostov**
* “*Pharmacokinetic variability, efficacy and tolerability of a new antiepileptic drug, brivaracetam*”. Scandinavian project between the National Center for Epilepsy in Norway and Denmark (Filadelfia, Dianalund). **Torleiv Svendsen,** medical leader, **Cecilie J. Landmark,** project leader
* “*Children with refractory epilepsy and use of the newest antiepileptic drugs*”. Scandinavian project between the National Centre for Epilepsy in Norway and Denmark (Filadelfia, Dianalund). Margrete Larsen Burns, Marina Nikoronova, responsible in Denmark, and **Cecilie J. Landmark**, project leader
* “*EDDI EMG triggered seizure seizure alarm*”. **Oliver Henning** in cooperation with Danish Epilepsy Center Dianalund
* *“Scandinavian multi-registry study of antiepileptic drug teratogenicity: the SCAN-A study”* . **Silje Alvestad,** post-doc, in cooperation with UiB/Haukeland)
* **Tosca.** Novartis. Prot.No CRAD001MIC03: “***T****uber****O****us* ***SC****lerosis Registry to Incre****A****se Disease Awareness*”. International multicenter study. **Marit Bjørnvold,** Principle Investigator, **and Caroline Lund**
* **EXIST-3.** Novartis (everolimus). Prot.No. CRAD001M2304: “*A three-arm, randomized, double-blind, placebo-controlled study of 2 trough-ranges of evereolimus as adjunctive therapy in patients with tuberous schlerosis complex (TSC) who have refractory partial-onset seizures*”. International multicenter study. **Marit Bjørnvold,** Principle Investigator **Caroline Lund**

### Most important national and international collaborators

**National**:

Prof. Eylert Brodtkorb, St. Olavs Hospital/ Trondheim University Hospital

Prof. Erik Taubøll, OUH

**International:**

Prof. Torbjörn Tomson, Karolinska Institutet, Stockholm, Sweden (“*European Registry of Antiepileptic drugs and Pregnancy*”)

Professors: P Ryvlin (Lyon), H Cross (London), K Braun (Utrecht), P Dimova (Sofia), S Francione (Milano), H Hecimovic (Zagreb), C Helmstaedter (Bonn), V Kimiskidis (Thessaloniki), K Malmgren (Götenburg), P Marusic (Praha), E Trinka (Salzburg), and B Steinhoff (Kork). (“*The E-PILEPSY project*”)

Prof. Marina Nikoronova, Dianalund, Denmark (“*Children and new antiepileptic drug”s*)

Prof. Christoph Helmstaedter, Bonn University Hospital

Prof. Kristina Malmgren, Sahlgrenska University Hospital

### Funding

* South-Eastern Norway Regional Health Authority
* Norwegian ExtraFoundation for Health and Rehabilitation
* Innlandet Hospital Trust
* The Competence Centre for Mental Delay and Epilepsy
* ADHD Network Research Funds

Scientific production of the research group in 2017

Peer reviewed original research articles: 12

Other publications: 16

**Dissertation: 2**

1. Hilde Elisabeth Nordahl Karterud: *Perceptions of illness and self in adolescents and adults with psychogenic, non-epileptic seizures (PNES)*. May 18, 2017
2. Silje Syrstad: *Nocturnal epileptiform activity in EEG and language skills.* Des 14, 2017

**Selected publications: 3**

1. [**Aaberg KM**](http://www.publika.no/publika?page=scientist&authorid=11874), Surén P, [Søraas CL](http://www.publika.no/publika?page=scientist&authorid=10976), Bakken IJ, [**Lossius MI**](http://www.publika.no/publika?page=scientist&authorid=7186), Stoltenberg C, Chin R (2017).
“[*Seizures, syndromes, and etiologies in childhood epilepsy: The International League Against Epilepsy 1981, 1989, and 2017 classifications used in a population-based cohort*](https://doi.org/10.1111/epi.13913)*”.* Epilepsia, 58 (11) 1880-91
2. [**Aaberg KM**](http://www.publika.no/publika?page=scientist&authorid=11874), Gunnes N, Bakken IJ, Lund Søraas C, Berntsen A, Magnus P, [**Lossius MI**](http://www.publika.no/publika?page=scientist&authorid=7186), Stoltenberg C, Chin R, Surén P (2017). “[*Incidence and Prevalence of Childhood Epilepsy: A Nationwide Cohort Study*](https://doi.org/10.1542/peds.2016-3908)*”.* Pediatrics, 139 (5)
3. [**Johannessen Landmark C**](http://www.publika.no/publika?page=scientist&authorid=12064), Burns ML, Baftiu A, Farmen AH, [**Lossius MI**](http://www.publika.no/publika?page=scientist&authorid=7186), [**Johannessen SI**](http://www.publika.no/publika?page=scientist&authorid=6425), Tomson T (2017). “[*Pharmacokinetic variability of valproate in women of childbearing age*](https://doi.org/10.1111/epi.13872)*”.* Epilepsia, 58 (10), e142-e146