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doi: 10.1111/epi.14016; Published online: 05 February 2018

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doi: 10.1111/epi.14022; Published online: 24 February 2018

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doi: 10.1111/epi.14013; Published online: 28 January 2018

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doi: 10.1111/epi.14028; Published online: 26 February 2018

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doi: 10.1111/epi.14029; Published online: 20 February 2018

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doi: 10.1111/epi.14037; Published online: 25 March 2018

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doi: 10.1111/epi.14034; Published online: 12 March 2018

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doi: 10.1111/epi.14036; Published online: 14 March 2018

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doi: 10.1111/epi.14033; Published online: 21 February 2018

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Steven Kemp, Christopher D. Graham, Rebecca Chan, Hayley Kitchingman, Kirsty Vickerman, and Markus Reuber
doi: 10.1111/epi.14040; Published online: 25 March 2018

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doi: 10.1111/epi.14044; Published online: 25 March 2018

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doi: 10.1111/epi.14043; Published online: 20 March 2018

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Haya Fernandez, Heba Tallah Mohammed, and Tejal Patel
doi: 10.1111/epi.14015; Published online: 04 February 2018

BRIEF COMMUNICATIONS

Online only: The following articles can be accessed in the electronic version of this issue at onlinelibrary.wiley.com

e34

Assessment of the correlations of lacosamide concentrations in saliva and serum in patients with epilepsy

Christian Brandt, Christian G. Bien, Renate Helmer, and Theodor W. May
doi: 10.1111/epi.14023; Published online: 16 February 2018

Therapeutic drug monitoring of antiepileptic drugs (AEDs) is usually based on serum samples. In this study we investigated the correlation between saliva and serum drug concentrations at steady state in patients with epilepsy receiving lacosamide (LCM) across a wide range of doses. The relation with daily lacosamide dose and concentration in serum and saliva was also assessed. The mean LCM trough concentration in serum and saliva did not differ significantly. Serum and saliva concentrations across all samples were highly correlated. Saliva could offer great potential to monitor drug concentrations and guide LCM treatment in epileptic patients.

e40

White matter spongiosis with vigabatrin therapy for infantile Spasms

Phillip L. Pearl, Annapurna Poduri, Sanjay P. Prabhu, Chellamani Harini, Richard Goldstein, Richard M. Atkinson, Dawna Armstrong, and Hannah Kinney
doi: 10.1111/epi.14032; Published online: 23 February 2018

Intramyelinic edema, or white matter spongiosis, has been associated with vigabatrin therapy in various animal models but its role or significance in clinical studies is unknown. We conducted a neuropathological examination on an infant boy with bilateral polymicrogyria and epilepsy. He was initiated on vigabatrin, which controlled infantile spasms and continued as maintenance therapy, at age 4 months but died unexpectedly at 27 months. Autopsy showed a combination of developmental and acquired lesions. Intramyelinic edema was identical to lesions previously demonstrated in animal models on vigabatrin therapy, indicating that vigabatrin toxicity with intramyelinic edema is not restricted to animal models.

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Altered vaccine-induced immunity in children with Dravet syndrome

Stéphane Auvin, Mohamed Jeljeli, Béatrice Desnous, Nadia Soussi-Yanicostas, Pascal Dournaud, and Ghislaine Sterkers

doi: 10.1111/epi.14038; Published online: 07 March 2018

We explored ex vivo cytokine responses to a combined aluminium-adjuvanted vaccine in children with Dravet syndrome (DS) compared to sex- and age-matched healthy children. Using ex vivo peripheral-blood mononuclear cells and monocytes, we found that vaccine responsiveness is biased toward a pro-inflammatory profile in DS with a M1 phenotype of monocytes. We provide new insight into immune mechanisms associated with DS that might guide research for the development of new immunotherapeutic agents in this epilepsy syndrome.

e51

Extrahippocampal high-frequency oscillations during epileptogenesis

Lin Li, Mayur Patel, Joyel Almajano, Jerome Engel Jr, and Anatol Bragin

doi: 10.1111/epi.14041; Published online: 06 March 2018

The current study recorded local field potential (LFPs) from multiple brain sites in 13 rats after intrahippocampal kainic-acid (KA), and computed the temporal and spatial occurrence of high frequency oscillations (HFOs) in animals that later developed epilepsy and those who did not. Results revealed the wide-spread appearance of extrahippocampal HFOs, both ripples and fast ripples (FRs), only in rats that developed epilepsy, suggesting involvement of a large-scale—rather than local—pathological network during epileptogenesis.

e56

SCN1A variants associated with sudden infant death syndrome

Catherine A. Brownstein, Richard D. Goldstein, Christopher H. Thompson, Robin L. Haynes, Emma Giles, Beth Sheidley, Matthew Bainbridge, Elisabeth A. Haas, Othon J. Mena, Jonathan Lucas, Bethann Schaber, Ingrid A. Holm, Alfred L. George, Hannah C. Kinney, and Annapurna H. Poduri

doi: 10.1111/epi.14055

In a cohort of 10 Sudden Infant Death Syndrome (SIDS) cases with hippocampal abnormalities but no seizure history, we identified *SCN1A* variants in two infants. The first harbored *SCN1A* G682V, and the second had two *SCN1A* variants in cis: L1296M and E1308D, a variant previously associated with epilepsy. Functional evaluation in a heterologous expression system demonstrated partial loss-of-function for both G682V and the compound variant L1296M/E1308D. Our cases represent a novel association between *SCN1A* and SIDS and extend the *SCN1A* spectrum from epilepsy to SIDS.

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