

In Memoriam Konstantin V. Danilenko (19.03.1962 -18.01.2023)



Kostya at SLTBR Geneva 2013

The Basel Centre for Chronobiology and the SLTBR Board have received the sad news that our long-term well-loved colleague from the Institute of Neurosciences and Medicine in Novosibirsk, Konstantin Danilenko M.D., died on 18 January 2023. He was an excellent and careful scientist and clinician, a kind and reliable friend, and a stalwart pillar of the light therapy research community. Kostya participated in most annual SLTBR meetings from the early days, and acted as Board member from 2016-18.

Before coming to Basel in 1995, he had already published clinical trials on Seasonal Affective Disorder and light therapy with his mentor Arcady Putilov. He was well aware of his unique situation living in a natural laboratory of photoperiodic extremes near the Arctic Circle to study the epidemiology of SAD at high latitudes.

In Basel he participated in many constant routine studies of circadian rhythms and sleep/wake EEG as influenced by light and/or melatonin. His crucial contribution was to show that a single dawn simulation at low light intensities could phase advance the human circadian system.

Returning to Novosibirsk, he set up a constant routine lab in his next-door apartment, and carried out some unique and demanding studies: he found that six daily dawn signals were able to forestall the natural delay drift occurring without morning light, and that sleep *per se* was only a weak zeitgeber in humans. A series of ophthalmologic investigations were initiated together with Marc Hébert, who personally transported all the electroretinography apparatus from Canada to Siberia. Protocols involving four days in near darkness, or 24-hours of continuous illumination, investigated possible circadian rhythms in human rod or cone photoreceptor function.

He continued the neurobiological exploration of seasonality and the physiology of light responses, the effects of bright light/sunshine on menstrual cycles, reproductive hormones, and body weight, as well as controlled trials of combined wake and light therapy for unipolar depression, or dawn simulation vs. bright light for SAD. His broad-ranging interests encompassed both pragmatic clinical applications of chronotherapy and curiosity as to mechanisms.

Importantly, his group developed the objective statistical “hockey-stick” method to estimate dim light melatonin onset, which is now widely used instead of fixed or dynamic thresholds or subjective estimates.

In Basel, Kostya had an extra important function as defensive midfield football player (with our former colleague Kurt Kräuchi), winning the international hospital indoor football tournament in 1998.

We offer our sincere condolences to family and colleagues in Novosibirsk.

Anna Wirz-Justice for the SLTBR