

## Diabrux

### Device and fully automated evaluation software for quantitative diagnosis of sleep bruxism

#### Invention

Outside the scientific setting of a sleep laboratory, diagnosis of sleep bruxism mainly relies on examination for clinical evidence – e.g. indicated by the tips of the teeth appearing flat – and on standardized questionnaires. There is a lack of a user-friendly and validated device for



Prototype after intraoral use by volunteer

Diabrux is worn by the patient like a night splint. The device is based on a hard plate, which is covered by five specifically linked layers with different colours and defined abrasion properties. A fully automated evaluation software is provided for standardized, objective, quantitative analysis.

#### Commercial Opportunities

Diabrux not only allows early diagnosis of bruxism, but also facilitates monitoring of bruxism activity. Thus, personalized therapy planning is possible and cost-intensive treatments can be scheduled more accurately.

The device is easy to apply. Patient compliance is high as irritation by the thin device does not occur. Production of the device is based on established processes and production costs underline the economic feasibility.

#### Current Status

In contrast to currently available devices for diagnosis of sleep bruxism, Diabrux has been successfully validated in a clinical study. On behalf of Heinrich Heine University of Duesseldorf PROvendis offers access to rights for commercial use. In case of interest we will be pleased to provide further information.

#### Relevant Publications

Ommerborn MA, Heid C, Giraki M, Schneider C, Gotter A, Schaefer R, Raab WHM. Fully-automatic analysis of abrasion on a plate for sleep-bruxism assessment. 88th General Session of the IADR, 14.-17. July 2010, Barcelona, Spain, J Dent Res 89(Spec Iss B):2387, 2010.

An invention of Heinrich Heine University Düsseldorf.

#### Competitive Advantages

- Validated in clinical study
- Fully automated evaluation software
- Enables personalized planning prior to cost-intensive treatment
- High patient compliance
- White surface facilitates use by day
- Straight-forward manufacturing based on established processes
- Low production costs

#### Technology Readiness Level

123456789

System prototype demonstration in operational environment

#### Industries

- Dental Technology

#### Ref. No.

2235

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