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## Press release

### RapDys application for the remediation of dyslexia now available.



*Gnosia and Erganeo have renewed their exclusive license agreement for the development and use of the new RapDys application, now available online.*

#### **An effective treatment for dyslexia in children**

Dyslexia is a specific learning disability affecting around 7% of the population in France and, in particular, 200,000 children aged six to eleven.

RapDys was developed as part of research into the rehabilitation of language disorders. The team, comprising Gregory Collet, Cécile Colin and Willy Serniclaes (Université Libre de Bruxelles, CNRS Université de Paris) produced a series of results that led to the signing of a first licensing agreement between Erganeo and Gnosia in 2016. *“We asked Erganeo to help us develop user-friendly software that is relatively easy to use for everyone. The activity is specific, fun and appealing to children,”* says Gregory Collet.

It is a game-like software program for the remediation of unconscious audio-phonological perception processes for treating dyslexia in children. It is specifically designed for children with phonological impairment and/or “confusion between voiced and voiceless stops” in reading. It is web-based and the software does not need to be installed on computers - the application can currently be accessed using a tablet or a smartphone.

The exercises offered by RapDys can be done under the supervision of a speech therapist and also at home. After a number of training sessions lasting 10 or 20 minutes each, children with specific language impairment (SLI) increased their performance in the areas of sound identification, discrimination and categorisation by up to 40%.

#### **The application is now available.**

Gnosia specialises in providing online training and information services for speech and language therapists, as well as publishing tools and materials to assist in speech and language therapy assessment.

After redeveloping the RapDys application in 2020, Gnosia has signed a renewal of its licensing agreement with Erganeo and has made the application available online from the Gnosia website, on mobile devices. *“We are delighted with this project, which is the result of research carried out at European level, because it shows that the humanities and social sciences are fully exploitable. The digital approach offers an application that is both scientifically rigorous and fun for young patients. Through this investment, we have succeeded not only in finding a market but also in having a significant societal impact,”* says Suat Topsu, President of Erganeo.

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## **About Erganeo** – [www.erganeo.com](http://www.erganeo.com)

Erganeo is a French investment fund that specialises in breakthrough innovations (deep tech) with a major societal impact. We invest early in the game to secure researchers' newest inventions before they are transferred to companies or before start-ups are founded, across a wide range of scientific fields: Biotech, Infotech (Telecom, connected objects, big data, AI) and Eneritech (new energy, chemistry, materials), among others. Erganeo aims to accelerate and simplify links between research and industry for the benefit of society. To do so, we finance and accompany the new generation of French researchers and entrepreneurs on the road to international recognition and success. As a member of the SATT Network, Erganeo draws on the Ile-de-France network in building the foundations of a better tomorrow, tapping into a talent pool of over 20,000 researchers across 350 cutting-edge, leading laboratories. Since it was founded, Erganeo has invested over €41m, thus contributing to the signing of 88 licensing agreements with companies of all sizes and setting up 31 start-ups. Press contact : Caroline Pontifice - Communication and Marketing Manager - [caroline.pontifice@erganeo.com](mailto:caroline.pontifice@erganeo.com)

## **About Gnosia**– [www.gnosia.fr](http://www.gnosia.fr)

Gnosia has been developing software for speech and language therapists and their patients since 2005, and has been offering continuing education for practitioners since 2012.

Due to the scientific background of its creator, Franck Médina, Editor-in-Chief of Glossa from 2000 to 2010, Gnosia is positioned at the interface between research and clinical practice. In line with this, Gnosia has been financing Karine Harrar-Ekinazi's thesis since 2019 (CIFRE scheme), whose work focuses on an intermodal approach to interventions in written language disorders. In this study, about 50 speech and language therapists recruited 120 children with access to mostly computerised materials. Our SIGL®, SWITCHPIDO®, PHONOPIDOW® and RapDys® software are included in this study along with other software.

RapDys® is a software package drawing on the work of Willy Serniclaes on allophonic language processing, the main consequence of which is an alteration in the categorical processing of the voicing feature, which leads to confusion between voiced and voiceless phonemes in children with specific written language impairment ("dyslexia"). The software was first validated in the work of Grégory Collet et al (2012) and then in an interventional study on 45 subjects conducted by Rachel Zoubrinetzki, which showed the effectiveness of the application in written language rehabilitation. At the same time, Grégory Collet is continuing the validation on different populations of children. This software can be used for evaluation and then specific training.

Collet, G., Colin, C., Serniclaes, W., Hoonhorst, I., Markessis, E., Deltenre, P., & Leybaert, J. (2012). Effect of phonological training in French children with SLI: perspectives on voicing identification, discrimination and categorical perception. *Research in developmental disabilities*, 33(6), 1805-1818.

Serniclaes, W., Collet, G., & Sprenger-Charolles, L. (2015). Review of neural rehabilitation programs for dyslexia: How can an allophonic system be changed into a phonemic one? *Frontiers in Psychology*, 6. <https://doi.org/10.3389/fpsyg.2015.00190>

Zoubrinetzky, R., Collet, G., Nguyen-Morel, M.-A., Valdois, S., & Serniclaes, W. (2019). Remediation of Allophonic Perception and Visual Attention Span in Developmental Dyslexia: A Joint Assay. *Frontiers in Psychology*, 10, 1502. <https://doi.org/10.3389/fpsyg.2019.01502>