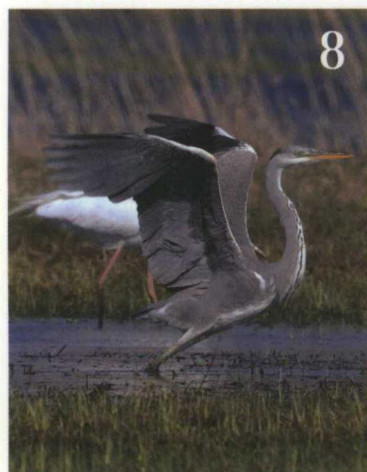


ACADEMIA

No. 2 (18) 2008 The Magazine of the Polish Academy of Sciences

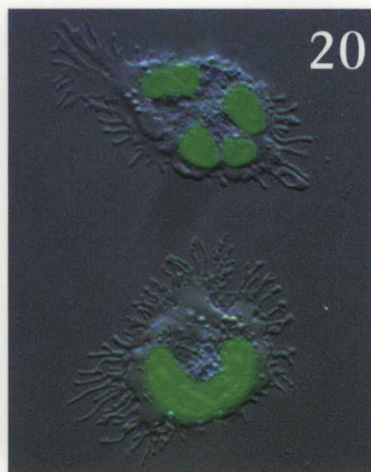


Focus on

Gene-Coded Addresses

K. Mokwa

How do they know where to head for the winter? A look at genetic and non-genetic memory in migrating birds

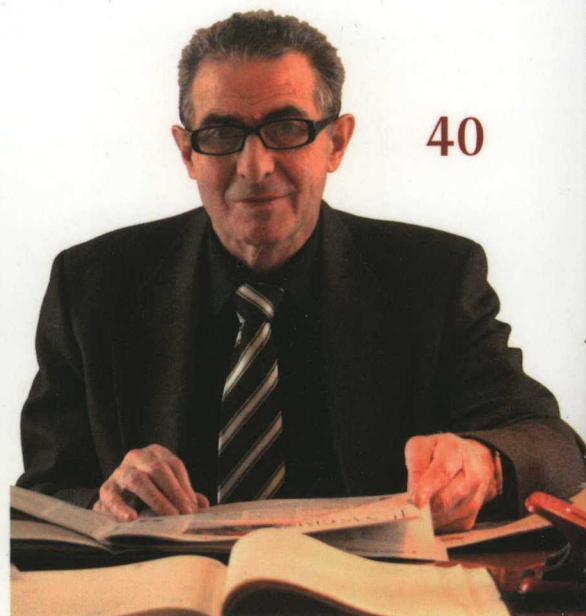


Focus on

Immunological Algorithms

S. Wierchoń, K. Ciesielski, M. Kłopotek

Document searching might be improved by an algorithm inspired by the mechanism of immune system memory



Briefly Speaking

Pagan Substratum

K. Modzelewski

The Vice President of the Polish Academy of Sciences discusses the historian profession, Europe's barbarian heritage, and opposition activity

Editorial 3

Focus on

Psychology 4

Shreds of Memory, Tomasz Maruszewski

Ecology 8

Gene-Coded Addresses, Katarzyna Mokwa

Cosmology 12

The Milky Way's Neighbors, Ewa L. Łokas

Archaeology 16

In the Realm of the Devil, Jacek Lech

Artificial Intelligence 20

Immunological Algorithms, Sławomir Wierchoń, Krzysztof Ciesielski, Mieczysław A. Kłopotek

Solid State Physics 24

Giant Magnetoresistance, Józef Barnaś

Neurobiology 28

Fleeting Memory, Joanna B. Strosznajder

Research in Progress

Molecular Biology 31

Molecular Roots of Memory, Leszek Kaczmarek

Ethnology 34

Crucified, Kamila Baraniecka

Astrophysics 36

Perfect Black Body, Stanisław Bajtlik

Geology 38

Making Mountains, Marta Rauch-Włodarska

Briefly Speaking

Pagan Substratum 40

Highlights

Insight

Album Set in Stone 46

Marcin Machalski

The Pope in a Synagogue 48

Elżbieta Jastrzębowska

Short Circuit

Watching Everyone? 50

Włodzimierz Zawadzki

Gallery 51

Cover photo by: Alamy Images/BE&W

Page 2 photos by: M. Jonczyk; Invitrogen/Molecular Probes, probes.invitrogen.com; P. Dolowy