

Friday, 1 October 2010

Headlines | Assistance | RSS | Newsletter | Mobil | Weather | TV program

SPIEGEL ONLINE SCIENCE

MESSAGE VIDEO TOPICS FORUM ENGLISH DER SPIEGEL MIRROR TV SUBSCRIPTION SHOP

Home Politics Economics Panorama Sport Culture Net world Science one daily University mirror School mirror Journey Car

Message > science > medicine

Login | Registrierung

28.09.2010

Pressures | Send | Feedback | Merken

MORE IN THE INTERNET

Intestine worms arrange themselves with immune system: Scientific paper of Maizels et al.

Spiegel online is not responsible

for contents of external Internet sites.

Self disconnection

Intestine worms outwit immune system



Janice Murray/Maizels Laboratory, University OF Edinburgh
Central thread theme Heligmosomoides polygyrus: Worm cure against allergies

Intestine worms reach into the fight against the human immune system to perfiden cunning: They bring the body-own defense to restrain. That has not only for the parasite advantages - but also for humans.

With the defense of pathogens it is for the organism of crucial importance to differentiate between body-own and body-strange materials. The monitoring of this important bodily function falls into the field of the so-called regulatorischen T-cells. In the case of an infection they adjust the immune defense and prevent thereby a over reaction, with which defense cells inadvertently also body-own structures would destroy to attack and thus healthy fabric. Besides they ensure for the fact that after successful fight of an intruder the immune answer is again switched off.

In order to out-cheat the body defense, takes advantage of the intestine parasite Heligmosomoides polygyrus exactly this mechanism, Rick Maizels of the University OF Edinburgh and its colleagues now discovered. In mice the worm separates in addition a protein named HES. HES suggests the immune system in addition, increases regulatorische T-cells to produce. These again ensure for the fact that the appropriate immune reaction is suppressed against the intruder.

In this way the central thread theme withdraws itself from the access by the defense cells and secures its surviving. One suppress the formation of the T-cells, the worms would have to oppose nothing more to the immune system and were killed, write the researchers [in the "journal OF experimental Medicine"](#).

The surplus of regulatorischen T-cells has therefore not only for the parasite advantages, but also for humans. The cells can suppress also allergies and autoimmune illnesses. In countries with small hygiene standards and according to high parasite infestation within the population both allergies and diseases are rare such as rheumatism.

The absorption of the immune system by proteins such as HES could be in opinion of the researchers an explanation for it - and a potential starting point for new

ANZEIGE

Wegweiser Demenz



Wichtige Informationen über die Krankheit und Hilfe im Umgang mit den Betroffenen finden Sie [hier](#).

Bundesministerium für Familie, Senioren, Frauen und Jugend

therapies. In the past researchers had for example already succeeded in alleviating the Asthmasymptome of allergisch made mice with the help of the red Fadenwürms. The worm infection brought however no improvement to mice with Ekzem. Obviously, so the assumption of the scientists, can affect the parasite exceeding immune reactions favorably not everywhere in the body.

mbe/dapd

THIS ARTICLE...

Pressures | Send | Feedback | Notice

SOCIAL NETWORK



ANZEIGE

	<p>Sushi Restaurant mit -70% Ein tolles Angebot. Sushi Essen in Deiner Stadt bis -70% günstiger! Jetzt Angebote sichern!</p>	<p>12% Rendite mit Edelmetall Sicher, ökologisch, börsenunabhängig. Ihre Chance als Privatanleger - bereits ab 3500 € Jetzt renditestark investieren</p>
	<p>Singles aus Ihrer Region Täglich verlieben sich auf neu.de tausende Singles neu. Was ist mit Ihnen? Jetzt kostenlos testen</p>	
	<p>Alte Schulfreunde finden! Erfahren Sie kostenlos, was aus Ihren ehemaligen Schulfreunden geworden ist. Jetzt kostenlos wiederfinden!</p>	<p>adcloud</p>

NEWS PURSUE

with free services up to date hold itself:

Assistance-let

everything from the column [science](#) [Twitter](#) | [RSS](#)
 everything from the column [medicine](#) [RSS](#)

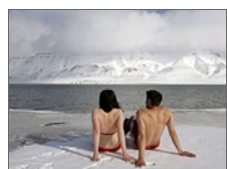
© SPIEGEL ONLINE 2010

All rights reserve

Duplication only with permission of the SPIEGELnet GmbH

MORE FROM THE DEPARTMENT SCIENCE

CLIMATE CHANGE



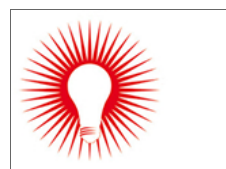
Global warming: CO2, greenhouse effect and the consequences - all messages and background

SATELLITE PHOTOGRAPHS



View from above: Discover the beauty of the world - in the satellite photograph of the week

EDGE 2009



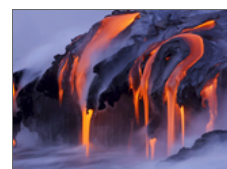
What comes? Prominent scientists of our time describe its large ideas

NUMERATOR



Computing art: Numbers and logic - the column over the miracle world of mathematics

COUNT SEISMO



Mysterious planet: Earth, water, air - the column over the largest mysteries of the geo research

OVERVIEW SCIENCE >>

[▲ TOP](#)

DER SPIEGEL



Contents
Abo offers
Booklet buy

Your MIRROR



Contents
Abo offers
Booklet buy

MIRROR HISTORY



Contents
Abo offers
Booklet buy

MIRROR KNOWLEDGE



Contents
Abo offers
Booklet buy

Cultural mirror



Contents

Service of mirror on-line partners

AUTO ONE AND SPARE TIME

- Route planner
- Gasoline price
- comparison
- Kfz
- Insurance
- Penalty
- computer
- Hospital search
- Books
- order

- Hearing book
- Download
- Physician search
- book up-to-date
- Dating
- That
- Directory
- Hotel

ENERGY

- Gas offerer
- comparison
- Current offerer
- comparison
- Energy saving
- councillor
- Energy
- compares

JOB

- Content check
- Gross net
- Computer
- University tools
- Vacation dates
- 2650
- Headhunter

FINANCES AND RIGHT

- Bank
- compares
- Credits
- compare
- Ill
- insurance
- Currency
- computer
- Insurance
- compares
- DSL offerer
- Comparison
- Handytarife
- Real estate
- Stock exchange
- Process cost
- Computer
- On the right of
- consultation

[Home](#) [Politics](#) [Economics](#) [Panorama](#) [Sport](#) [Culture](#) [Net world](#) [Science](#) [University mirror](#) [School mirror](#) [Journey](#) [Car](#)

Weather

SERVICES

- Headlines
- RSS
- Newsletter
- Mobil

VIDEO

- Message video
- MIRROR TV magazine
- MIRROR TV program

MEDIA

- MIRROR QC
- Mediadaten
- Selbstbuchungstool
- book report
- further magazines

MAGAZINES

- DER SPIEGEL
- Your MIRROR
- MIRROR HISTORY
- MIRROR KNOWLEDGE
- Cultural mirror
- University mirror

MIRROR GROUP

- Subscription
- Shop
- MIRROR TV
- manager magazine
- Harvard Business one.
- Group of mirrors

FURTHER ONE

- Assistance
- Contact
- Reproduction
- Data protection
- Imprint

TOP