

THE SCIENTIST

CONTENIDO

VOLUMEN 25 No. 6, JUNE 2011

SPECIAL VACCINE ISSUE: FEATURES

- 36 **Vaccines: Looking Back, Looking Ahead.**
Robin A. Weiss and Peter Hale.
- 38 **The Last Vaccine Frontier.**
Successful vaccines have been created to protect against pathogenic bacteria and viruses. Why aren't there any for combating fungal infections?
Brad Spellberg.
- 44 **Recognizing the Human Potential.**
It may be time to reconsider an AIDS vaccine which is more human than viral, triggering the immune system in a way that no other vaccine does.
Gene M. Shearer and Adriano Boasso.
- 50 **Shooting Down Addiction.**
A new breed of vaccines aims to wean users off cocaine.
Thomas Kosten.

DEPARTMENTS

- 16 **Editorial**
A Shot in the Arm.
Decades of vaccine research have expanded our understanding of the immune system and are yielding novel disease-fighting tactics.
Edyta Zielinska.
- 20 **Notebook**
Summit Science; One Bad Apple; Simultaneity; One on One: Ivan Martin.
- 30 **Thought Experiment.**
First, Do No Harm...
Is DNA damage an inevitable consequence of epigenetic reprogramming?
Jim Woodgett.
- 32 **Critic at Large.**
Hard and Harder.
The path to eradicating malaria in Africa involves much more than just a vaccine.
Michael K. Gusmano.

- 56 **The Literature.**
Approaching Universality.
Pitfalls and triumphs on the way to complete vaccine protection.
Rino Rappuoli.
- PLUS:**
Stem cells in joint recovery; telomeres and mitochondria in aging; RNA capping in viruses.
- 60 **Lab Tools.**
Track Your Package.
How to follow stem cells transplanted into living tissue.
Amber Dance.
- 65 **Scientist to Watch.**
Dominique Bergmann.
Jef Akst.
- 66 **Bio Business.**
Take Two of These.
Drugmakers are teaming up to test the disease-fighting power of combination therapies earlier in the development cycle than ever before.
Bob Grant.
- 78 **Reading Frames.**
The Gravity of Life.
Whose well-being is threatened by our changing relationship with the myriad organisms that shaped the evolution of our species?
Rob Dunn.
- Capsule Reviews.**
Bob Grant.
- 80 **Foundations.**
One-Man NIH, 1887.
Cristina Luiggi.

IN EVERY ISSUE

- 12 **Contributors.**
- 18 **Speaking of Science.**
- 70 **The Guide.**
- 74 **Classifieds.**