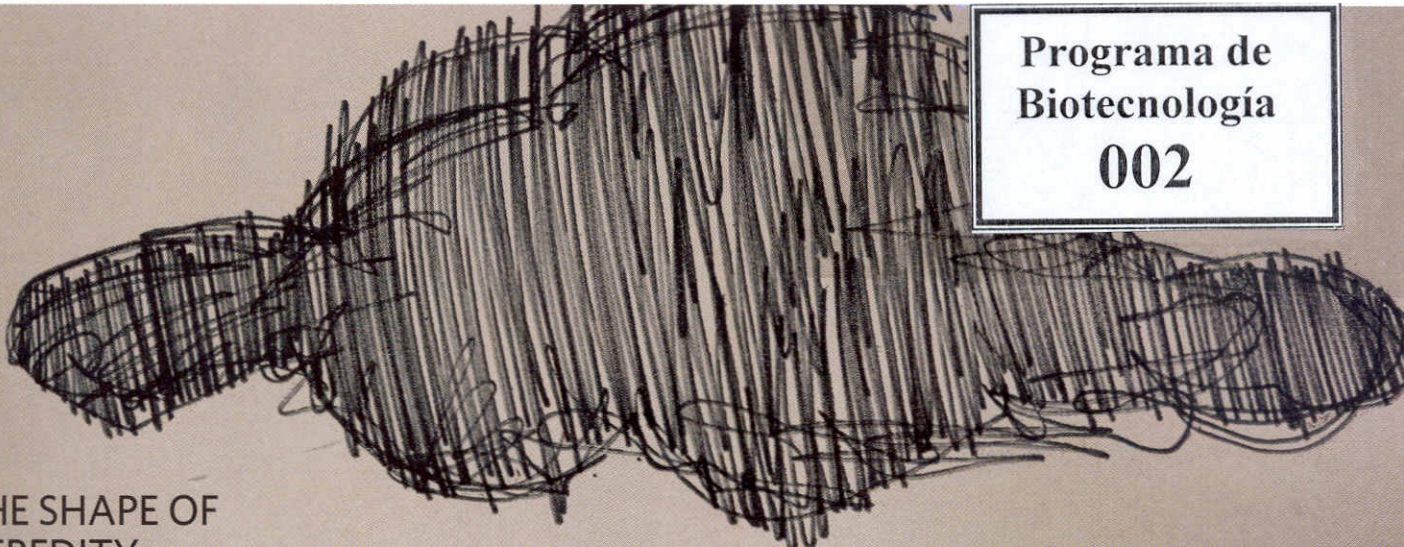


TheScientist

\$4.99 | VOL. 23 NO. 7 | JULY 2009 | WWW.THE-SCIENTIST.COM

MAGAZINE OF THE LIFE SCIENCES

Programa de
Biotecnología
002



THE SHAPE OF
HEREDITY

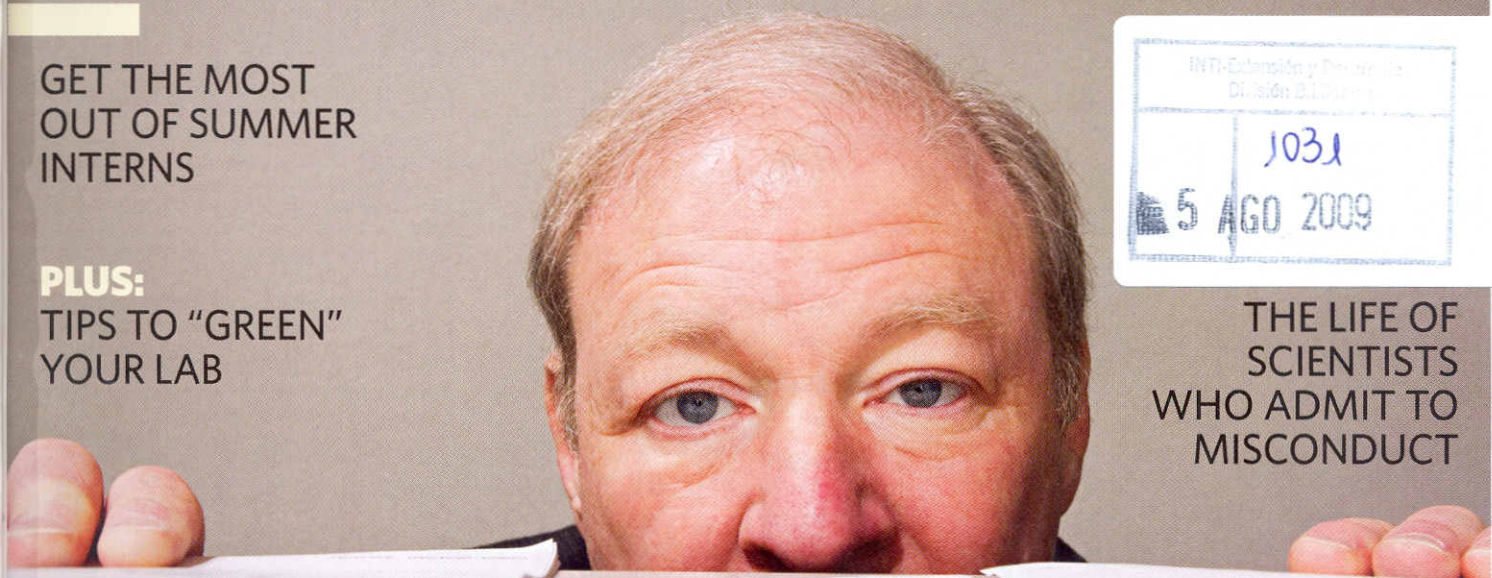
THE GREAT
HADDOCK REVIVAL

GET THE MOST
OUT OF SUMMER
INTERNS

PLUS:
TIPS TO "GREEN"
YOUR LAB



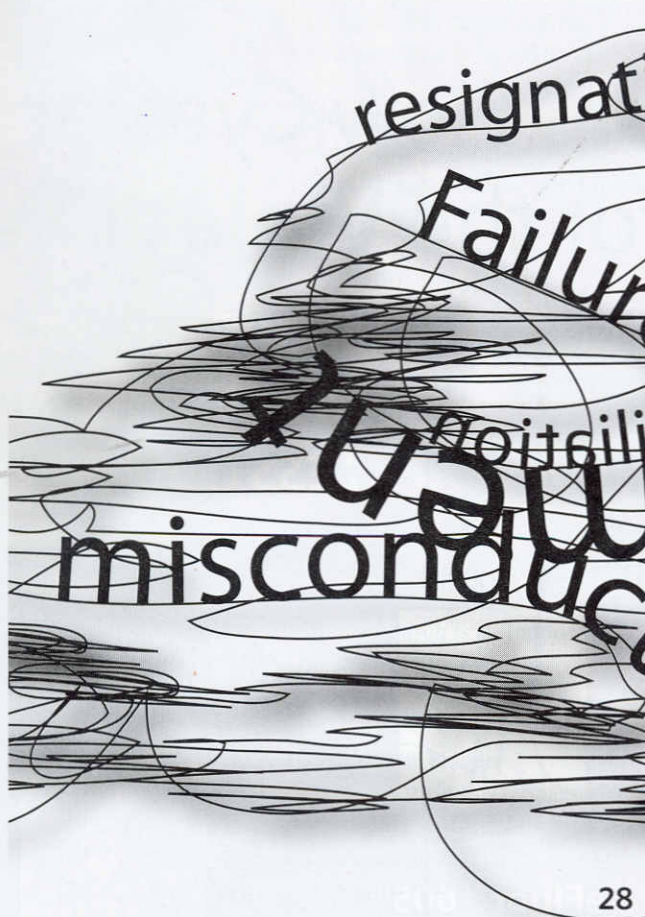
THE LIFE OF
SCIENTISTS
WHO ADMIT TO
MISCONDUCT



UNDER A CLOUD OF
SUSPICION

CONTENTS

July 2009



FEATURES

28

Life After Fraud

Every year, the Office of Research Integrity penalizes a handful of biomedical scientists for misconduct, typically barring them from funding for a few years. In theory, once the penalty period is up, the punishment—and the shame—should be over. However, in the age of the Internet, announcements of debarments that ended years ago are easily retrievable with an online search of the scientist's name. Three scientists agreed to talk to ALISON MCCOOK about how they've tried to move on despite the permanent public record.

34

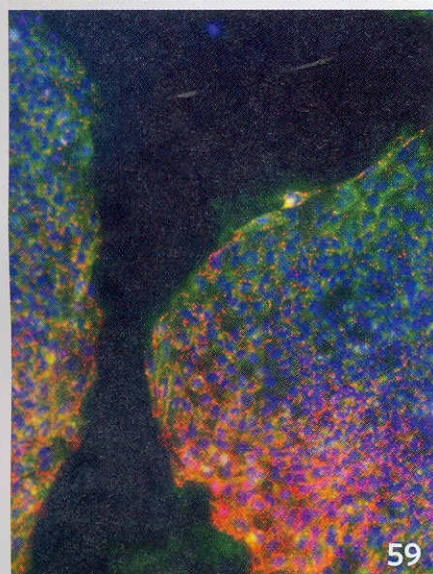
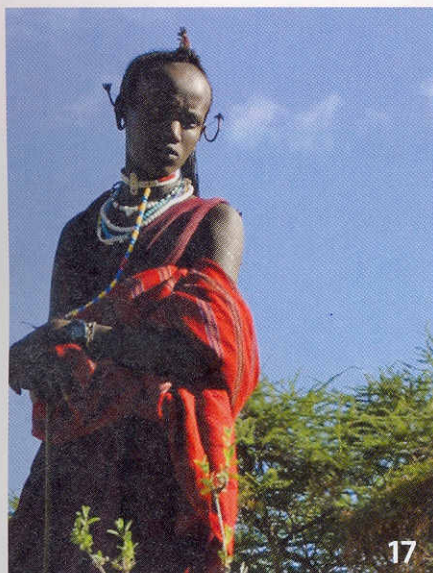
The Shape of Heredity

Tracking the movement of DNA and the location of structural proteins in the nucleus reveals that DNA placement makes the difference between activity and silence. The University of Basel's SUSAN GASSER describes her decades-long quest to understand this fundamental process.

40

The Great Haddock Revival

Since the 17th century, fishing has been an integral part of New England life. But 400 years of scooping fish from the sea have taken a toll, and nearly all groundfish are hurting. Except one. KIRSTEN WEIR asks: If experts can replicate what went right with this one species, could others be pulled back from the brink?



DEPARTMENTS

13 Editorial

Fairness for Fraudsters

The punishment for researchers guilty of misconduct is excessively punitive, and needs reform.

BY RICHARD GALLAGHER

17 Notebooks

Number two-ome; Like life; Hard bargain; Sample, don't trample; Pride vs tribe

24 Opinion

Don't Format Manuscripts

Journals should use a generic submission format until papers are accepted.

BY FRANCOIS BRISCHOUX & PIERRE LEGAGNEUX

27 Column

Quitters Sometimes Win

Not everybody who likes independent research is suited for it.

BY STEVEN WILEY

48 Profile

Prokaryotic Pioneer

Always a trailblazer, Susan Gottesman laid the foundation for two new fields in bacterial gene regulation.

BY KAREN HOPKIN

51 The Literature

Hot Papers: New stem cell marker sparks debate; clues to how plants respond to infection; new drug target for inflammation; apoptosis inhibitor helps grow human ES cells. Scientist to Watch: Konrad Hochedlinger.

55 Lab Tools

Green at the Bench

Replacing your lab's chemical "worst offenders" with less toxic alternatives

BY AMY COOMBS

59 Bio Business

Success with iPSCs

The nascent science still has many stumbling blocks to step over before companies can reap the rewards of reprogramming.

BY ELIE DOLGIN

63 Careers

What Vacation?

How to make summer internships fruitful affairs for advisors and students

BY BOB GRANT

76 Foundations

First human brain chemicals, 1865-1871

BY ELIE DOLGIN

IN EVERY ISSUE

11 Contributors

14 Mail

Activating debate; Citation amnesia; To punish or praise?; Peer pressure

58 The Guide

67 Recruitment