IN BRIEF
1066 Roundup of the week’s news

IN DEPTH
1069 KICKOFF LOOMS FOR DEMO OF BRAIN-CONTROLLED MACHINE
Brazilian neuroscientist Miguel Nicolelis defends his plans to show off a thought-directed exoskeleton at the World Cup By K. Servick

1070 A BOLD BABY STEP ON EMISSIONS
But U.S. curbs alone won’t slow warming By E. Kintisch

1072 LENGTHY RNAs EARN RESPECT AS CELLULAR PLAYERS
A few of these molecules are clearly important, but just how many? By E. Pennisi

1073 GEARING UP FOR A CLOSER LOOK AT THE HUMAN PLACENTA
Workshop participants build an agenda for research on this oft-ignored bridge between mother and fetus By J. Kaiser

1075 SOLAR FURNACE RISES FROM THE SOVIET ASHES IN CENTRAL ASIA
Lasers, superconductors, and gamma rays now fill the time of extraordinary facility By R. Stone

FEATURES
1076 MINORITY VOICE
Richard Tapia has prepared generations of minority students for academic jobs, but he says they still aren’t welcome By J. Mervis

1080 THE KILLING GROUND
Clues from a German coal mine show how early hunters lived, 300,000 years ago, and how their prey died By M. Balter

SPECIAL SECTION
The global supply chain

INTRODUCTION
1100 Rethinking the global supply chain

NEWS
1104 The information highway gets physical By J. Mervis

OPINION
1108 The whole chain
By K. J. Dooley

REVIEWS
1109 Emerging approaches, challenges and opportunities in life cycle assessment
S. Hellweg and L. Milà i Canals

1114 Humanity’s unsustainable environmental footprint
A. Y. Hoekstra and T. O. Wiedmann

1118 Slowing Amazon deforestation through public policy and interventions in beef and soy supply chains
D. Nepstad et al.

INSIGHTS
1084 CHANGE IS COMING TO THE NORTHERN OCEANS
Cod and pollock respond to changing climate and ocean conditions By A. B. Hollowed and S. Sundby

1086 SPEED METAL
Planetary core formation is a relatively fast process By T. Elliott

1087 MEMORIES—GETTING WIRED DURING SLEEP
Sleep gives dendritic spines staying power By D. R. Euston and H. W. Steenland

1089 JUST ADD AEROSOLS
Only a little aerosol is needed to change cloudiness By L. A. Remer

1090 EU AGRICULTURAL REFORM FAILS ON BIODIVERSITY
Extra steps by Member States are needed to protect ecosystems By G. Pe’er et al.

1092 ENERGY AT LIFE’S ORIGIN
Analysis of primitive organisms suggests life began at hydrothermal vents By W. F. Martin et al.

1094 DISRUPTING DISSOLVING IONS AT SURFACES WITH FLUID FLOW
Solvent flow can dramatically change surface reactions By G. A. Waychunas

1095 BEST PRACTICES FOR BIOFUELS
Data-based standards should guide biofuel production By H. Youngs and C. Somerville
An electric field manipulates terbium nuclear spin

1164 MEMBRANE BIOLOGY
Caspase-mediated cleavage of phospholipid flippase for apoptotic phosphatidylserine exposure
K. Segawa et al.

1168 SHEEP GENOME
The sheep genome illuminates biology of the rumen and lipid metabolism
Y. Jiang et al.

1173 SLEEP AND LEARNING
Sleep promotes branch-specific formation of dendritic spines after learning.
G. Yang et al.
► PERSPECTIVE P. 1087

1178 SCHIZOPHRENIA
Specific disruption of thalamic inputs to the auditory cortex in schizophrenia models.
S. Chun et al.

1182 NEURODEVELOPMENT
Cell-intrinsic requirement of Dscam1 isoform diversity for axon collateral formation.
H. He et al.

DEPARTMENTS
1065 EDITORIAL
Science diplomacy with Cuba
By Gerald R. Fink et al.

1194 WORKING LIFE
On the road again
By Jacopo Marino

Science Staff ............................................1063
New Products ............................................1187
Science Careers ............................................1188