NEWS

IN BRIEF
1142 News at a glance

IN DEPTH
1144 ‘The game has changed.’ Al triumphs at protein folding
In milestone, software predictions finally match structures calculated from experimental data  By R. F. Service

1145 Why were salmon dying? The answer washed off the road
Common tire chemical implicated in coho salmon kills  By E. Stokstad
REPORT BY Z. TIAN ET AL.
10.1126/SCIENCE.ABD6951

1146 Scientists fear no-deal Brexit as deadline looms
U.K. researchers in limbo, weeks from crashing out of EU trade and travel rules  By C. O'Grady

1147 How cats get their stripes and spots
Newly uncovered mechanism may pattern the coats of other mammals, too  By E. Pennisi

1148 Federal hospital data system falters at tracking pandemic
HHS Protect data, which influence how pandemic supplies and support are allocated, conflict with other data sources  By C. Piller

1150 New challenges emerge for planned human challenge trials
Scientists debate risks and benefits of intentionally exposing volunteers to dangerous virus  By W. Cornwall

IN SIGHTS

1151 Amid the cheering, some vaccines face questions
A candidate from AstraZeneca and the University of Oxford has puzzling efficacy data  By J. Cohen

1152 Saving sanctuaries
Critics charge that sanctuaries for retired research chimpanzees are failing their animals. Can a new tool help?  By D. Grimm

BOOKS ET AL.
1156 Fodder for future scientists

PERSPECTIVES
1162 Quantum-limited sound attenuation
Resonantly interacting atoms confined by lasers have implications for neutron stars  By T. Schaefer
REPORT p. 1222

1163 Enzyme formation by immune receptors
Upon pathogen recognition, some plant immune receptors assemble into active enzyme complexes  By L. Tian and X. Li

1165 Miniaturization of robots that fly on beetles’ wings
The shock-absorbing wings of the rhinoceros beetle battle in-flight collisions  By J. Sun
REPORT p. 1214

1166 Probing the dark side of the exciton
Photoemitted electrons reveal large-momentum (“dark”) excitons in monolayer WSe₂  By M. X. Na and Z. Ye
REPORT p. 1199

1167 Constraints on selfish behavior in plants
Plants overproduce roots to secure resources nearby but avoid costly trips to neighbors’ patches  By M. Semchenko
REPORT p. 1197

1168 Stimulating the brain to restore vision
High-definition brain prostheses are developed for treating blindness  By M. S. Beauchamp and D. Yoshor
RESEARCH ARTICLE p. 1191

1170 Mario J. Molina (1943–2020)
Visionary environmental chemist  By K. A. Prather

POLICY FORUM
1171 Fossil electricity retirement deadlines for a just transition
A 2035 deadline for decarbonizing U.S. electricity would strand only about 15% of fossil capacity-years  By E. Grubert

Celebrity chimpanzee Hercules is making new friends at Project Chimps.
1182 Innate immunity
Enterviral 3C protease activates the human NLRP1 inflammasome in airway epithelia
K. S. Robinson et al.
RESEARCH ARTICLE SUMMARY; FOR FULL TEXT: DX.DOI.ORG/10.1126/SCIENCE.AAY2002

1183 Evolution
Selection enhances protein evolvability by increasing mutational robustness and foldability
J. Zheng et al.
RESEARCH ARTICLE SUMMARY; FOR FULL TEXT: DX.DOI.ORG/10.1126/SCIENCE.ABB5962

Plant science
1184 Direct pathogen-induced assembly of an NLR immune receptor complex to form a holoenzyme S. Ma et al.
RESEARCH ARTICLE SUMMARY; FOR FULL TEXT: DX.DOI.ORG/10.1126/SCIENCE.ABE3069

1185 Structure of the activated ROQ1 resistsosome directly recognizing the pathogen effector XopQ R. Martin et al.
RESEARCH ARTICLE SUMMARY; FOR FULL TEXT: DX.DOI.ORG/10.1126/SCIENCE.ABD9993

1186 Developmental biology
The N-glycome regulates the endothelial-to-hematopoietic transition D. M. Kasper et al.

1191 Neuroscience
Shape perception via a high-channel-count neuroprosthesis in monkey visual cortex X. Chen et al.
PERSPECTIVE p. 1168; PODCAST

1199 Physics
Directly visualizing the momentum-forbidden dark excitons and their dynamics in atomically thin semiconductors J. Madéo et al.
PERSPECTIVE p. 1166

1204 Spectroscopy
Super-resolution lightwave tomography of electronic bands in quantum materials M. Borsch et al.

1208 Coronavirus
De novo design of potent and resilient hACE2 decoys to neutralize SARS-CoV-2 T. W. Linsky et al.

1214 Biomechanics
Mechanisms of collision recovery in flying beetles and flapping-wing robots
H. V. Phan and H. C. Park
PERSPECTIVE p. 1165

1219 Tropical forest
Long-term collapse in fruit availability threatens Central African forest megafauna E. R. Bush et al.

1222 Quantum gases
Universal sound diffusion in a strongly interacting Fermi gas
P. B. Patel et al.
PERSPECTIVE p. 1162

1227 Coronavirus
Robust neutralizing antibodies to SARS-CoV-2 infection persist for months A. Wajnberg et al.

1230 Deep biosphere
Temperature limits to deep subsurface life in the Nankai Trough subduction zone V. B. Heuer et al.

LETTERS
1174 Evidence-based hunting policy needed in Slovakia
By M. Kutil and M. Duľa

1174 Computational social science: On measurement
By A. X. Wu et al.

1175 Chinese sturgeon needs urgent rescue
By X. Zhou et al.

1175 Errata

RESEARCH
IN BRIEF
1177 From Science and other journals

REPORTS
1197 Plant science
The exploitative segregation of plant roots C. Cabal et al.
PERSPECTIVE p. 1167

1199 Physics
DIRECTLY VISUALIZING THE MOMENTUM-FORBIDDEN DARK EXCITONS AND THEIR DYNAMICS IN ATOMICALLY THIN SEMICONDUCTORS J. Madeo ET AL.
PERSPECTIVE P. 1166

1204 Spectroscopy
SUPER-RESOLUTION LIGHTWAVE TOMOGRAPHY OF ELECTRONIC BANDS IN QUANTUM MATERIALS M. BORSCH ET AL.

1208 Coronavirus
DE NOVO DESIGN OF POTENT AND RESILIENT hACE2 DECOYS TO NEUTRALIZE SARS-CoV-2 T. W. LINSKY ET AL.

1214 Biomechanics
MECHANISMS OF COLLISION RECOVERY IN FLYING BEETLES AND FLOPPING-WING ROBOTS H. V. PHAN AND H. C. PARK PERSPECTIVE P. 1165

1219 Tropical forest
LONG-TERM COLLAPSE IN FRUIT AVAILABILITY THREATENS CENTRAL AFRICAN FOREST MEGAFANA E. R. BUSH ET AL.

1222 Quantum gases
UNIVERSAL SOUND DIFFUSION IN A STRONGLY INTERACTING FERMI GAS P. B. PATEL ET AL.
PERSPECTIVE P. 1162

1227 Coronavirus
ROBUST NEUTRALIZING ANTIBODIES TO SARS-CoV-2 INFECTION PERSIST FOR MONTHS A. WAJNBERG ET AL.

1230 Deep biosphere
TEMPERATURE LIMITS TO DEEP SUBSURFACE LIFE IN THE NANKAI TROUGH SUBDUCTION ZONE V. B. HEUER ET AL.

DEPARTMENTS
1141 Editorial
Low-income students lose ground
By Christopher Avery et al.

1242 Working Life
Coming out. By Bec Roldan

ON THE COVER
Root systems of two different plants, stained with red and blue dye for fresh cut flowers. Root dyeing provided experimental validation of theoretical predictions regarding plants’ response to competition. Neighbor plants segregate their root systems in the soil space but develop more roots locally when a competitor is close than when growing alone. See pages 1167 and 1197. Photo: Mikhail Ponce

New Products................................. 1235
Science Careers............................. 1236