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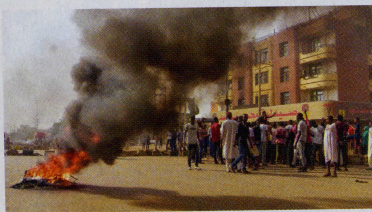
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##### Watching cancer cells evolve

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*Sarah C Johnson & Sarah E McClelland*

#### 167 ATMOSPHERIC CHEMISTRY

##### Ozone mystery laid to rest

A new constraint on atmospheric levels of ozone

*Mathew Evans* [SEE LETTER P.224](#)

#### 169 IMMUNOLOGY

##### Two types of fibroblast drive arthritis

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#### 170 ANCIENT GENOMICS

##### Human lineages in the far north

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#### 172 PROTEIN ENGINEERING

##### Catalytic machinery of enzymes expanded

A designer enzyme that uses an unnatural catalytic amino-acid residue

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#### 173 MICROBIOLOGY

##### Bacterial dormancy curbs phage epidemics

One type of CRISPR–Cas system offers broad-spectrum defence

*Simon A Jackson & Peter C Fineran*

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*I W Davies*

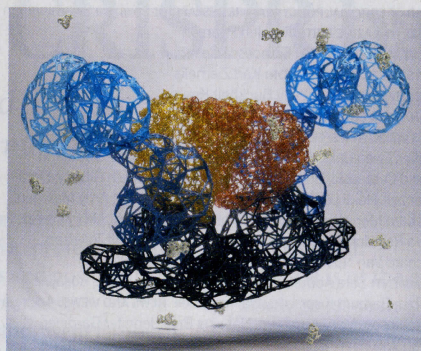
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*M Sikora et al.* [SEE N&V P.170](#)

#### 189 EPIDEMIOLOGY Mapping HIV prevalence in sub-Saharan Africa between 2000 and 2017

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#### 194 CELL SIGNALLING Metabolic control of BRISC–SHMT2 assembly regulates immune signalling

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#### 205 QUANTUM PHYSICS Hypersonic Bose–Einstein condensates in accelerator rings

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#### 210 CHEMISTRY Selective triplet exciton formation in a single molecule

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#### 214 CONDENSED-MATTER PHYSICS Elastic colloidal monopoles and reconfigurable self-assembly in liquid crystals

*Y Yuan, Q Liu, B Senyuk & I I Smalyukh*

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*A J Burke et al.* [SEE N&V P.172](#)

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*L Y Yeung et al.* [SEE N&V P.167](#)

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*J D Hemingway et al.*

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#### 236 ANCIENT GENOMICS Palaeo-Eskimo genetic ancestry and the peopling of Chukotka and North America

*P Flegontov et al.* [SEE N&V P.170](#)

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*A J Meeske, S Nakandakari-Higa & L A Marraffini* [SEE N&V P.173](#)

#### 246 IMMUNOLOGY Distinct fibroblast subsets drive inflammation and damage in arthritis

*A P Croft et al.* [SEE N&V P.169](#)

#### 252 STRUCTURAL BIOLOGY Multiple liquid crystalline geometries of highly compacted nucleic acid in a dsRNA virus

*S L Ilca et al.*

#### 257 STRUCTURAL BIOLOGY Cryo-EM structures of herpes simplex virus type 1 portal vertex and packaged genome

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### PALAEOLOGY

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