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COVER
Viewed from the inside of a fractured rice leaf, cells of the rice pathogenic bacterium Xanthomonas oryzae pv. oryzae invade through a stoma. Xanthomonas species inject host cells with unusual DNA binding proteins called transcription activator–like (TAL) effectors to up-regulate genes important for infection. Two studies in this issue (pages 1501 and 1509; related Perspective, page 1491) decipher TAL effector target specificity and show that new specificities can be engineered.

Image: Adam Bogdanove and Harry Horner/Iowa State University; false color: Yael Kats/Science
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BREVIA
1501 A Simple Cipher Governs DNA Recognition by TAL Effectors
M. J. Moscou and A. J. Bogdanove

*Xanthomonas* bacteria use an amino acid-based code to target effector molecules to specific DNA sequences.

>> Perspective p. 1491; Research Article p. 1509

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C. Jørgensen et al.

A proteomic strategy elucidates signaling networks between cells communicating through ephrin proteins and their receptors.

1509 Breaking the Code of DNA Binding Specificity of TAL-Type III Effectors
J. Bach et al.

Artificial effectors with new specificities have been constructed that mimic proteins injected into plant cells by pathogens.

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The Fermi LAT Collaboration

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1525 Evolution of Organic Aerosols in the Atmosphere
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A complete theropod from New Mexico implies that early dinosaurs dispersed widely, perhaps originating from South America.

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1541 Mapping Human Genetic Diversity in Asia
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Recreational drugs make for less cooperative than their siblings.

Some obese patients are missing a chunk of one of their chromosomes.

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1989 was a momentous year for Romania, but it was not until the mid-2000s that Tudor Luchian found resources to establish a cutting-edge lab at home.

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