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**ISAAA Knowledge Center Crop Biotech Update** February 10, 2012


# Crop Biotech Update

A weekly summary of world developments in agri-biotech for developing countries, produced by the Global Knowledge Center on Crop Biotechnology, International Service for the Acquisition of Agri-biotech Applications SEAsiaCenter (ISAAA).

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## Articles in the February 10, 2012 Issue of Crop Biotech Update

### NEWS

#### Global

- [ISAAA Launches 2011 Global Data on Biotech Crops in the Philippines](#)
- [Germplasm Resources Information Network Launched](#)
- [WEF Leaders See Need to View Agriculture as a Holistic System](#)
- [Policy Actions Recommended to Tackle Food Security in Arab World](#)

#### Africa

- [Tanzania Has 2 New Cassava Varieties Resistant to CBSD and CMD](#)
- [Agriculture Minister Says Tanzania Ready for Biotechnology](#)

#### Americas

- [Scripps Research Team Elucidates Structure of UV Protection Molecule in Plants](#)
- [ASA Comments on EU Free Trade Agreement](#)

#### Asia and the Pacific

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- [Japanese Scientists Sheds Light on Genetics of Rice Metabolism](#)
- [ICAR Publishes 6th Revised Edition of Handbook of Agriculture](#)

#### Europe

- [GM Potatoes Producing Biopolymer as a Renewable Resource](#)
- [EC JRC Publishes New Summary Plant Notifications](#)
- [Regulations on GM Field Trials in Europe: A Review](#)
- [European Leaders Say Europe Needs Biotech](#)
- [UK Scientists Identify Important Gene in Maize Plant](#)

## HOW DNA FINDS ITS MATCH

Secrets on how the DNA is repaired in bacteria and animals were recently revealed by researchers from UC Davis led by Stephen Kowalczykowski. The paper just published in the online journal *Nature* presented findings that DNA repair in bacteria through the RecA complex is more efficiently conducted when the DNA is in a coiled form.

"The most efficient homology search is when the local DNA density is higher and the RecA-DNA filament can contact more areas of duplex DNA at the same time," Kowalczykowski said. "RecA doesn't slide along the DNA looking for a partner."

Research activities in their lab also include a study to purify the protein made by the BRCA2 gene, a gene strongly associated with breast cancer. BRCA2 loads Rad51, the human equivalent of RecA in bacteria, onto DNA to search the human DNA for the correct region to use for repair. These findings could lead to strategies to cure and prevent human cancer.

See the news article at [http://news.ucdavis.edu/search/news\\_detail.lasso?id=10141](http://news.ucdavis.edu/search/news_detail.lasso?id=10141)

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- [Functional Characterization of G/ZEP Promoter in GE Tomato](#)
- [Role of Docs1 in Specification of Outer Cell Layers in Rice Roots](#)

**Document Reminders**

- [EFSA Report on Risk Assessment of Food and Feed Derived from GM Animals](#)

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