

- Home
- Top News
- Entertainment
- Odd News
- Business
- Sports
- Science
 - Resource Wars
- Health
- Real Estate
- Photos
- Analysis
- Deals

[Defense Department](#) • [Hamas-Fatah](#) • [Royal Wedding](#) • [Deadly storms](#) • [Ullman: missions impossible](#)

You are here: [Home](#) / [Science News](#) / [New test has a 'nose' for bacteria](#)

Science News

[View archive](#) | [RSS Feed](#)
[Receive Free UPI Newsletter](#)

New test has a 'nose' for bacteria

Published: April 27, 2011 at 7:38 PM

Comments (0) Email Print Listen [Share](#) 0

CHAMPAIGN, Ill., April 27 (UPI) -- U.S. researchers say they have developed a quick, simple method of identifying infectious bacteria by one of their telltale characteristics -- they stink.

Using a low-cost array of printed pigments that react to the distinct odor of many kinds of bacteria, researchers at the University of Illinois say they can identify bacterial infections by an aromatic "fingerprint," a university release said Wednesday.

Blood cultures have been used as the standard test for identifying blood-borne bacterial infections for more than a century, but they have serious drawback, researchers said.

"The major problem with the clinical blood culturing is that it takes too long," UI chemistry Professor Ken Suslick said. "In 72 hours they may have diagnosed the problem, but the patient may already have died of sepsis.

"Our approach to this problem has been to think of bacteria as simply micron-sized chemical factories whose exhaust is not regulated by the EPA. Our technology is now well-proven for detecting and distinguishing among different chemical odorants, so applying it to bacteria was not much of a stretch."

The artificial nose is an array of 36 reactive pigment dots that change color when they sense chemicals in the air. The pattern of color change over time is unique to each bacterium, researchers said.

In only a few hours, the array can not only confirm the presence of bacteria, but identify a specific species and strain, and can even recognize antibiotic resistance, a key factor in treatment decisions, they said.



Featured Galleries

Flooding in Missouri



"Endeavour" crew arrives at space center



25th anniversary of Chernobyl



Tornadoes rip through the Midwest

© 2011 United Press International, Inc. All Rights Reserved. Any reproduction, republication, redistribution and/or modification of any UPI content is expressly prohibited without UPI's prior written consent.

[Order reprints](#)

Next Story: [UPI NewsTrack Health and Science News](#)

or [see all Science News stories](#)

Join the conversation

Login Register

Enter comment here

leave comment via



Guest

or

name

email

Submit Comment



DO NOT buy Auto Insurance
Illinois - Discover \$9 car insurance trick. Auto insurers are scared you will learn this!



DO NOT buy Auto Insurance
Illinois - Discover \$9 car insurance trick. Auto insurers are scared you will learn this!



Illinois Residents
Time is running out to apply for Illinois program to eliminate your Credit Card Debt.



New Slimming Fruit Found
Strange African fruit burns 12.3 pounds of fat every 28 days.

[Buy a link here](#)



Most Popular

1. Higgs particle speculation said premature
2. Genetic risk for major depression found
3. China's water supply at risk
4. Sweden overrun by lemmings
5. Risks remain at Japan's nuclear plants

[Stories](#) [Photos](#) [People](#) [Comments](#)

[sign up to receive our daily newsletter](#)

Ad Choices

A Lower Electricity Rate is a Smart Way to Save.

Click
to learn what you can save.



News Photos - Slideshows

[Photos of the Day](#) [Week in Photos](#) [News](#) [Entertainment](#) [Sports](#) [Features](#) [Archives](#)

2010: Year in Review



Royal wedding preparations in



Obama releases long-form birth certificate



Flooding in Missouri



Obama meets with UAE crown prince



Tornadoes rip through the Midwest U.S.



"William & Kate" look-a-likes in London



Sen. John McCain visits Libya



Tornadoes hit St. Louis



Combating piracy in China



Protesters clash at rally for Palestinian



World powers rally behind Libyan rebels



Obama's Facebook town hall meeting

Featured Photos

1 of 10



[View Caption](#)

[Enlarge Photo](#)

Daily Poll

Would you vote for Donald J. Trump for president?

- YES
- NO

Additional News Stories

Top News

Missing woman's body pulled from pond
Weather death toll mounts in Alabama

Entertainment News

Schwarzenegger eyes 'Terminator' return

<p>Storms in southern U.S. kill dozens Feds concerned about Colo. marijuana law Tent city across from royal wedding abbey</p>	 <p>LOS ANGELES, April 28 (UPI) -- Actor and former California Gov. Arnold Schwarzenegger is to appear in a new entry in the iconic "Terminator" film franchise, The Hollywood Reporter said.</p> <p>Rocker Poly Styrene dead at 53 Paris Hilton's beau attacked Boxing manager Alice Ward dead at 79 Madame Tussauds to celebrate royal wedding</p>	<p><input type="radio"/> MAYBE</p> <p>Vote</p> 
<p>Science News</p> <p>Profits down, production up for Whiting Russia to halt gasoline exports in May Gasoline inventories down in United States WWII bomb found near British oil pipeline New Delhi eyes gas prices for TAPI</p>	<p>Local News</p> <p>At least 8 killed as storms move through Va. Felicia Stidham, writer and real estate broker, R.I.P. Bible Nation Society: Obama is the Antichrist Listage: Burger King's Meat Monster; Hating On Competitive Eating City's Landlords Get a Little More Tolerant</p>	<p>FARK .com</p> <p>Lawyer complains it is unfair his tradesman client is put on sex offender registry for having sex...</p> <p>Photos of the tornado damage from last night's clusterfark. FFFFFFFF-5 UUUUUUUUU nature</p> <p>There will be no tweeting at the Royal Wedding, which is okay, because the Internet will probably...</p> <p>It's always that 25th drink of Zambian moonshine that gets you</p> <p>2 cars, 2 utility poles, 2 DUI's. FARK: Within 16 hours Floods? Check. Tornadoes? Check. Frogs? Check</p>

Ad Choices

What will you do with your savings?

A lower electricity rate is a smarter way to save.

[Learn More](#)



Constellation Energy

©2011 Constellation Energy Group, Inc. Savings expectations based on Constellation's non-nuclear, 6.5 non-electric space heating rate as of February 10, 2011. Constellation's rate is subject to change and savings are not guaranteed over the term of your contract. The foregoing offer is sold and contracted by Constellation Energy, Inc., a subsidiary of Constellation Energy Group, Inc. Offer available only in Constellation service territory.

[Official Government Wires](#) | [About UPI](#) | [Site Map](#) | [Terms of Use](#) | [Privacy Policy](#) | [Advertise Online](#) | [Contact Us](#) | [UPI Mailing Address](#)
[Top News](#) | [Entertainment News](#) | [Odd News](#) | [Business news](#) | [Sports News](#) | [Science News](#) | [Health News](#) | [Real Estate News](#) | [News Photos](#)
[Archive](#) | [Job News](#) | [World News](#) | [Local News](#) | [U.S News](#) | [Special Reports](#)

© 2011 United Press International, Inc. All Rights Reserved.
 Welcome to UPI.com! Your trusted source for world news, top news, science news, health news and current events.
 We thank you for visiting us and we hope that we will be your daily stop for news updates.

A lower electricity rate is a smarter way to save.



Constellation Energy

[Learn More](#)

©2011 Constellation Energy Group, Inc. Savings expectations based on ComEd's non-summer BES (non-electric space heating) rate as of February 15, 2011. ComEd's rate is subject to change and savings are not guaranteed over the term of your contract. The foregoing offer is sold and contracted by Constellation NewEnergy, Inc., a subsidiary of Constellation Energy Group, Inc. Offer available only in ComEd service territory.

Ad Choices

Sponsored Links: [Auto Dealers](#) - [Celebrity Keynote Speakers Bureau](#)