

**MICROBEWORLD: 1220**

**EARLY DETECTION OF HARMFUL ALGAL BLOOMS :79**

\*send script to both Lane and VanderNoot before it's produced

**(san-DEE-ah)**

TODAY ON MICROBEWORLD –HARMFUL ALGAL BLOOMS, ALSO KNOWN AS H-A-B'S, ARE THE RESULT OF TOXIC SPECIES OF ALGAE THAT TAKE HOLD IN AN AREA AND GROW WILDLY OUT OF CONTROL. THE TOXINS THEY PRODUCE CAN POISON SHELLFISH, LEADING TO ILLNESS AND EVEN DEATH FOR PREDATORS THAT EAT THEM. IN NINETEEN NINETY-EIGHT, HUNDREDS OF SEA LIONS DIED FROM EATING TAINTED SHELLFISH IN MONTERREY BAY. NO ONE KNOWS WHY SUCH EVENTS OCCUR. MOLECULAR BIOLOGIST TODD LANE, A RESEARCHER FOR SANDIA NATIONAL LABORATORIES, SAYS ONE CURRENT H-A-B DETECTION METHOD IS CUMBERSOME AND SLOW. THE OTHER, NUMERICALLY IMPRECISE.

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**LANE: "BOTH THESE METHODS HAVE DIFFICULTIES AND SOME DRAWBACKS."**

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LANE AND HIS COLLEAGUE, ANALYTICAL CHEMIST VICTORIA VANDERNOOT, ARE FUNDED THROUGH A GRANT FROM COOPERATIVE INSTITUTE FOR COASTAL AND ESTUARINE ENVIRONMENTAL TECHNOLOGY. THEY ARE WORKING TO DEVELOP A QUICKER AND MORE SENSITIVE WAY TO DETECT THE PRESENCE OF HARMFUL ALGAL BLOOMS, USING LASER-INDUCED FLORESCENCE AND OTHER SMART SEPARATION TECHNIQUES.

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**VANDERNOOT: "WE THINK THIS KIND OF APPROACH IS GOING TO BE GREAT FOR DETECTING VERY LOW LEVELS OF THESE TOXINS."**

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VANDERNOOT HOPES THE "PROOF OF CONCEPT" WORK SHE AND LANE ARE DOING WILL LEAD TO A RELIABLE, COST-EFFECTIVE SYSTEM THAT COULD BE DEVELOPED TO WARN OF POTENTIAL H-A-B CONTAMINATION.

:11

**VANDERNOOT: "IT WOULD BE NICE IF WE COULD LOOK FOR IT BEFORE IT STARTS IMPACTING COASTAL ECONOMIES."**

:06

I'M REGINA O'BRIEN.

:01

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Mr