

## Prelim Bits 02-05-2017

### 3D Bio-Printer

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- Researchers have successfully generated **cartilage tissue using a 3D bioprinter**, an advance that could lead to new treatments for osteoarthritis.

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- Previously, Scientists have found **a new bio-ink for 3D printing with stem cells** that allows **printing of living tissue known as bio-printing**.

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- The new bio-ink contains two different polymer components: a natural polymer extracted from **seaweed** and a sacrificial synthetic polymer used in the medical industry.

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- The findings, could help printing complex tissues using the patient's own stem cells for surgical bone or cartilage implants, which could be used in knee and hip surgeries.

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### Bhitarkanika National Park

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- With the onset of the **breeding season of estuarine crocodiles**, Bhitarkanika National Park will be closed for 3-months.

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- It is a national park located in **Kendrapara district of Odisha** in eastern India. It has been designated as a National Park since 1998. It is also a **Ramsar site**.

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- The national park is surrounded by the Bhitarkanika Wildlife Sanctuary. **Gahirmatha Beach and Marine Sanctuary** lies to the east, and separates swamp region cover with canopy of mangroves from the Bay of Bengal.

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- The sanctuary is the second largest mangrove ecosystem in India. The national park and wildlife sanctuary is inundated by a number of rivers -

Brahmani, Baitarni, Dhamra, Pathsala and others.

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- The park is home to the **saltwater crocodile, white crocodile**, Indian python, black ibis, wild pigs, rhesus monkeys, chitals, darters, cobra, water monitor lizard. **Olive ridley sea-turtles** nest on Gahirmatha and other nearby beaches.

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- Mammals including monkeys, jackals, common langur, otter, sambar deer, jungle cat, fox, Mongoose, wolf, fishing cats, hyena, were also present, according to the survey data.

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## Heart Attack - Blood Group

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- People having a non-O blood group such as A, B or AB may be at an increased risk of a heart attack, new research has found.

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- The higher risk for cardiovascular events in non-O blood group carriers may be due to having **greater concentrations of von Willebrand factor** — a blood clotting protein, researchers said.

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- Non-O blood group carriers, specifically those with an A blood group, are known to have higher cholesterol.

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- And **galectin-3 protein**, which is linked to inflammation and worse outcomes in heart failure patients, is also higher in those with a non-O blood group.

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## Moon Village

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**China and Europe** are planning to build the first-ever “moon village” that could serve as a **launching pad for deep space missions** such as one to Mars, or even as a spot for space tourism and lunar mining.

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