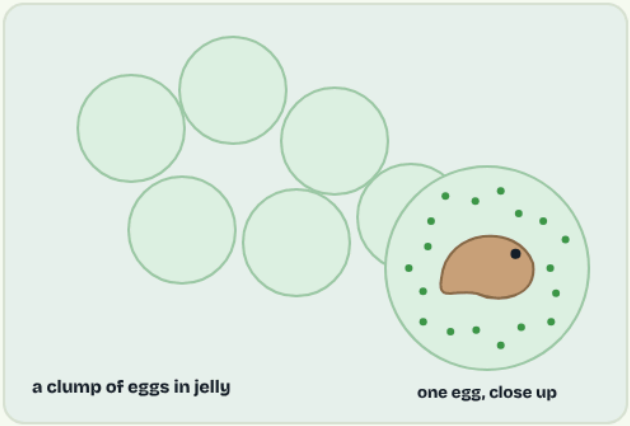
That is why

# How can a salamander run on solar power?

Algae grow inside spotted salamander eggs, and even inside the embryo's cells, trading oxygen and sugar for waste.

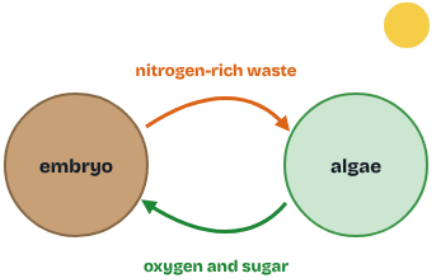
## A The green eggs




**Known since 1888**

A green alga, Oophila amblystomatis, grows in the jelly around spotted salamander eggs. For over a century, scientists thought it stayed outside the embryo.

## B A fair trade




sunlight powers the algae

### 1 A boost to grow

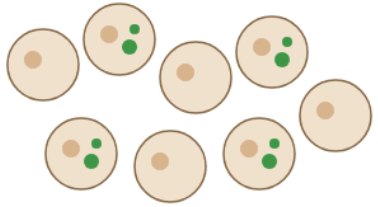
Embryos without algae in their jelly were slow to hatch.

### 2 A bloom on cue

The algae multiply fast around the time the nervous system forms.

## C Inside the cells

Ryan Kerney's discovery (2011)



some embryo cells hold algae
(green dots)

### 1 A first for vertebrates

Partnerships like this were known in corals, not in animals with backbones.

### 2 Why it works

The algae get in before the embryo's immune system is fully built, and salamander immunity is unusually weak.

**A salamander egg is a tiny greenhouse with the plant moved inside.**

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