

Biogenesis – All Life comes from Life

Tim Bollands



Thanks to our all speakers so far !

What is Life?

A family resemblance

LILU - virus, cell, organism, nation

God only knows!

The maintenance of a state
far-from-thermodynamic-equilibrium

An entity which replicates the information
that controls how it does so

Autopoiesis – well, it's complicated!

Beyond scientific explanation

Is it really not possible to define Life?
Can we exclude machines?

Why only 4 levels? Is there a limit (up & down)?

If not from God, then how did Life begin?

How do they do this?
Does “emergence” count as an explanation?

Circular definition? Is that allowed?

Life is complex, for sure.
But, can't the definition be simple?

Is it really beyond science?
Or is our **current** scientific understanding
of Life missing something?

Does Life really exist?

The inability of scientists to agree on a definition of Life suggests one of the following is true:

1. **There is no such thing as Life**, i.e. the distinction is entirely arbitrary – it is whatever we choose it to be. Hence, there is no right answer to the question *What is Life?*



2. **There is such a thing as Life**, i.e. there is a correct answer, which does draw a clear and meaningful distinction, and:



a) The difference between a living thing and a non-living thing is due to something **supernatural** (e.g. God, soul), which cannot be explained scientifically



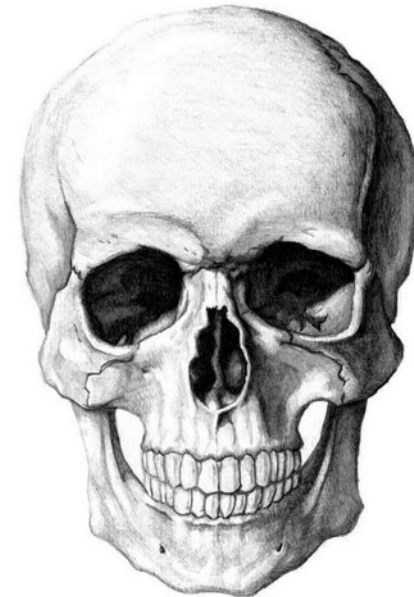
b) The difference between a living thing and a non-living thing is due to something **natural** – some property or capability which can be explained scientifically



Two natural events unique to living things...

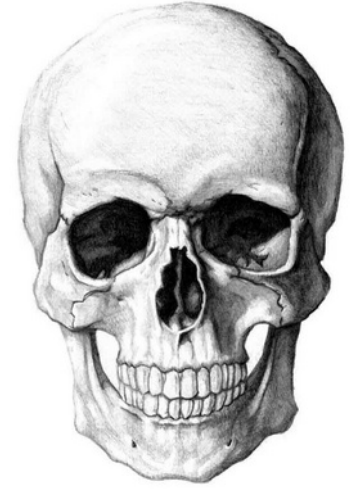
Birth

Death



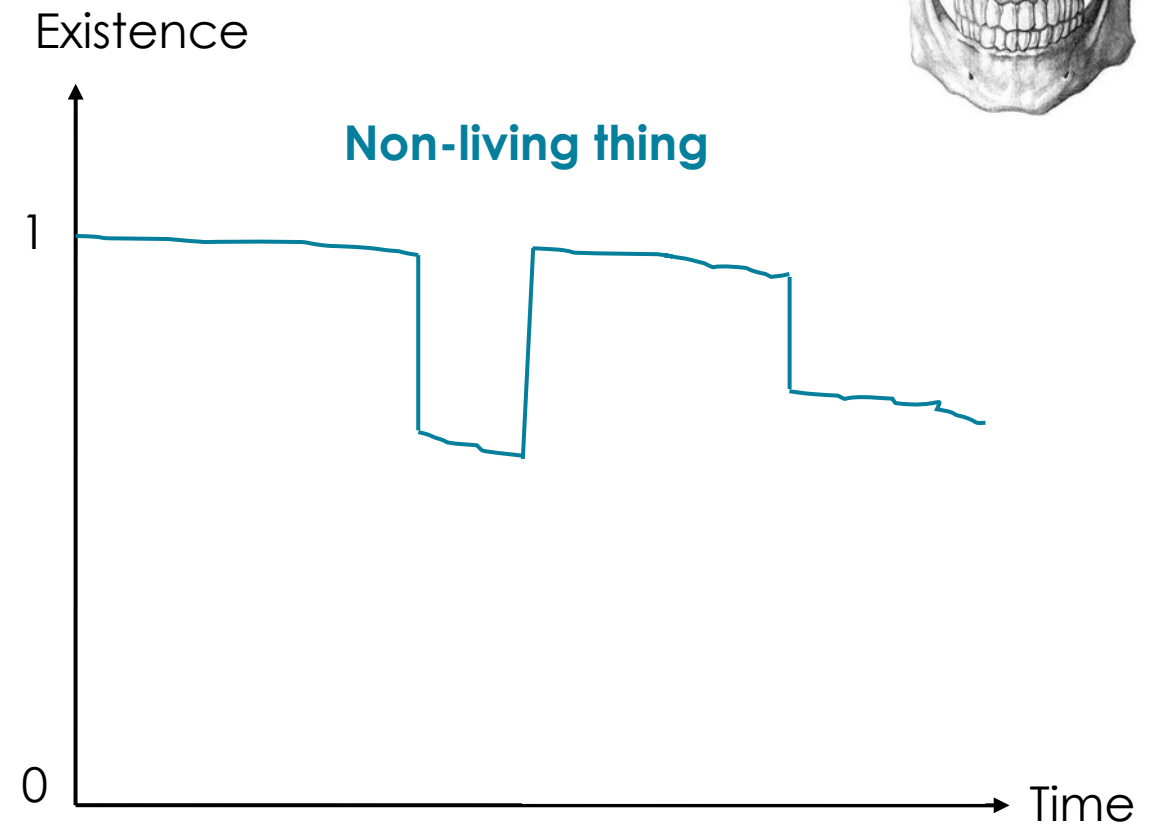
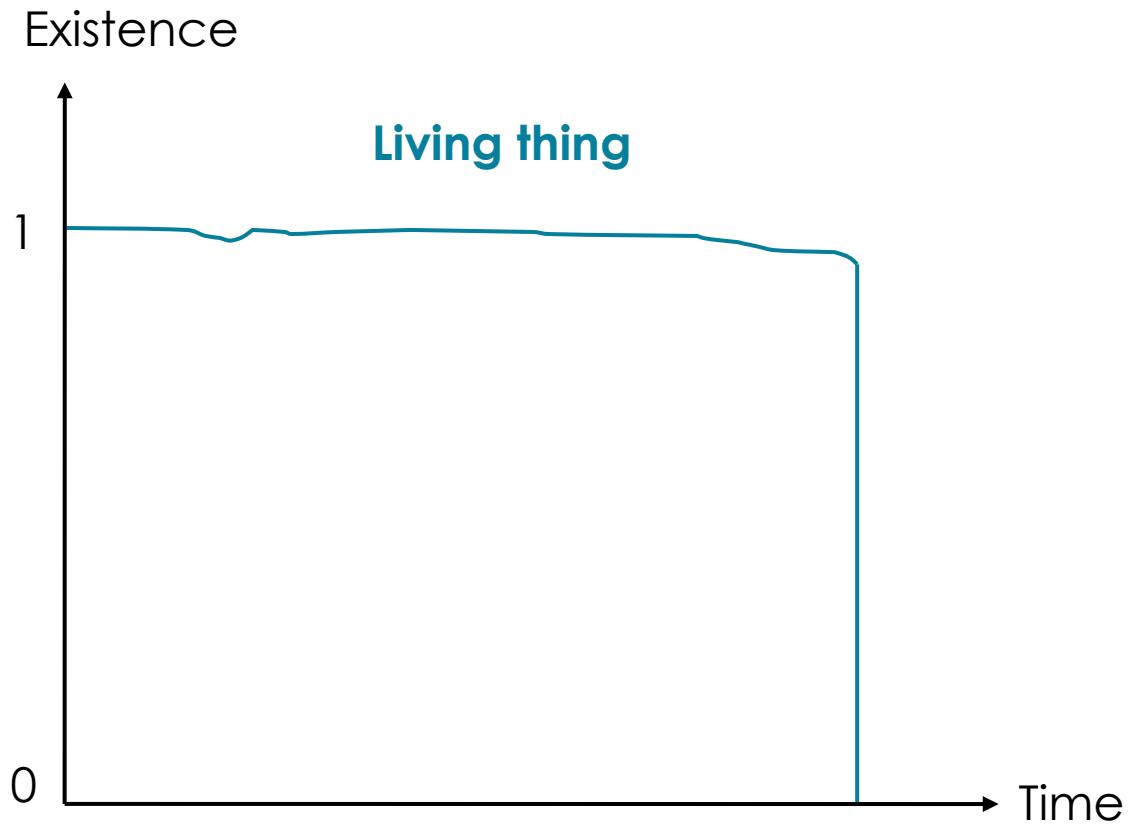
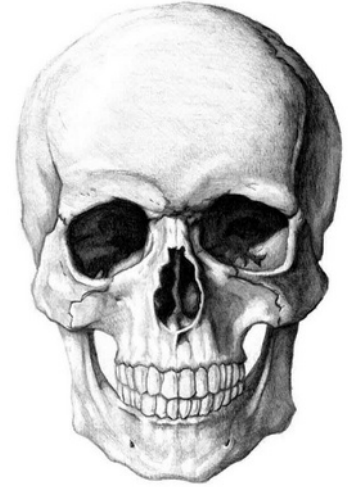
Death

Life is the ability to Die ?



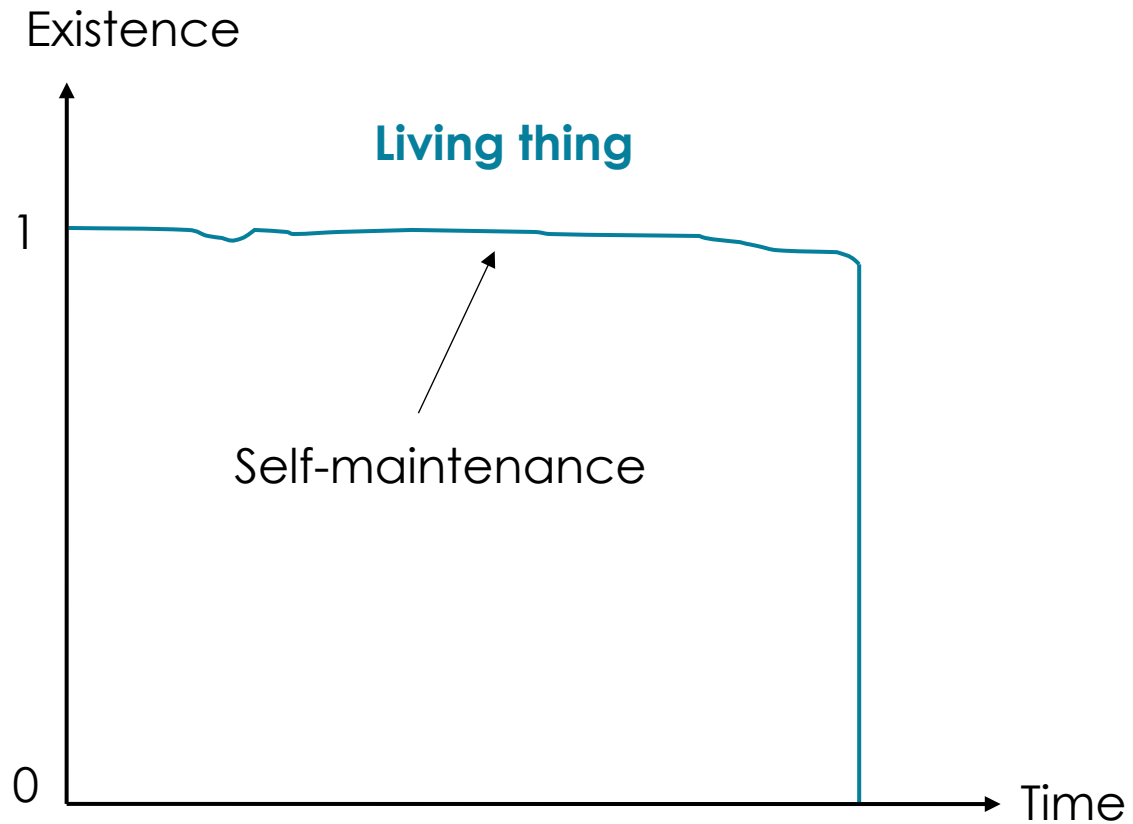
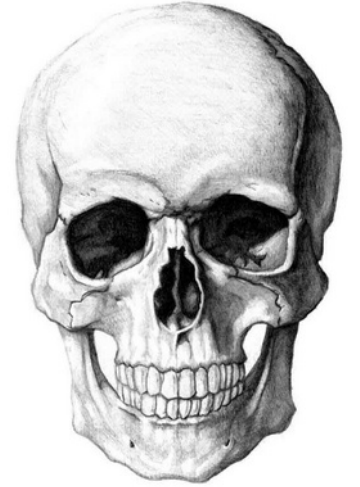
Death

Life is the ability to avoid Death !

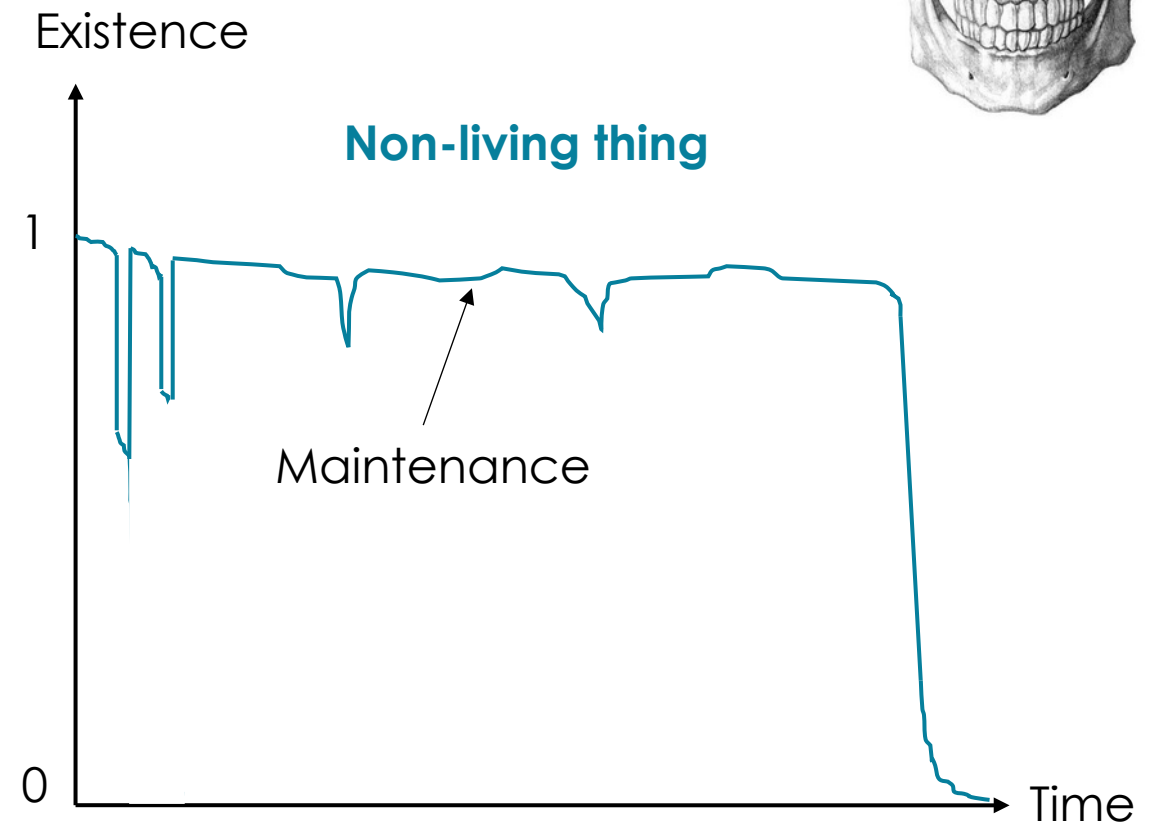


Death

Life is the ability to avoid Death !



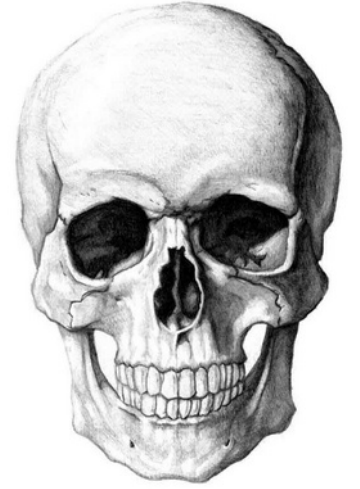
Living things maintain themselves !



Non-living things are maintained
by living things (or other natural events)

Self-maintenance

Life is the activity of a living thing
to maintain its material existence
despite its hostile environment

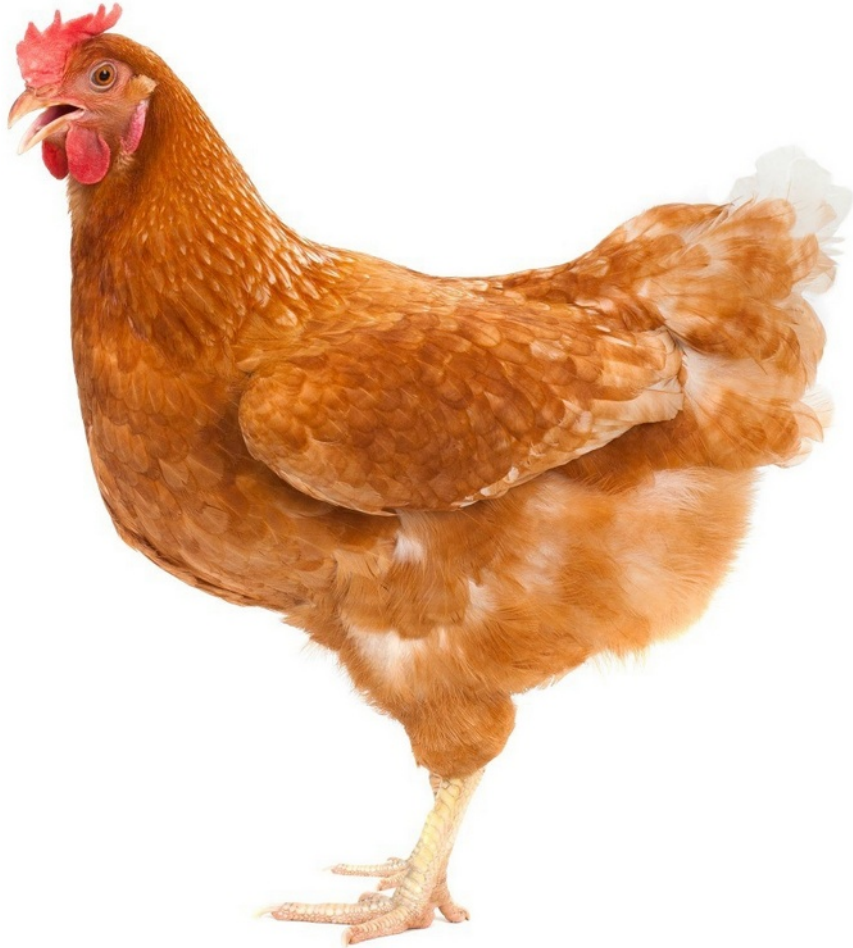


But hold on



A riddle ...

**Which came first,
the chicken or the egg?**



All Life comes from Life !



- Thomas Huxley, 1870

$99.\overline{9} \dots \%$

1

Birth

Biogenesis

“Living matter always arises by the agency of pre-existing living matter”

- Thomas Huxley, 1870

100%

Abiogenesis

The emergence of Life from non-living matter

0



Birth

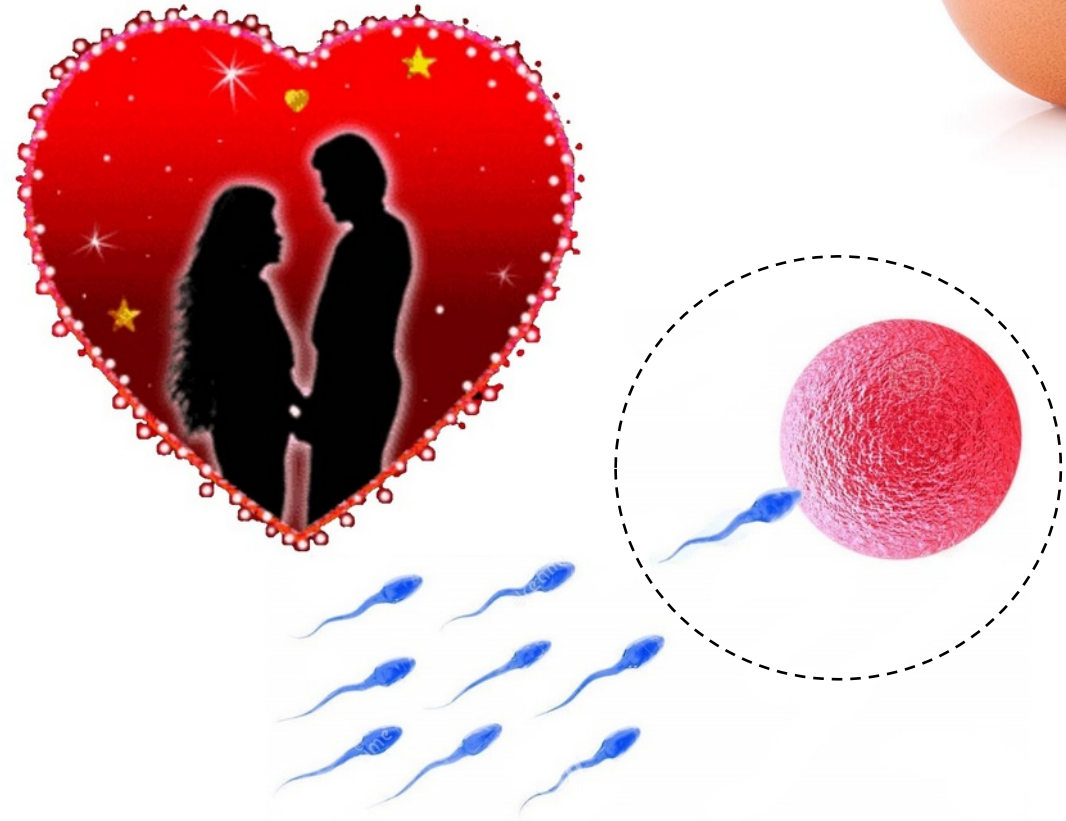
How are living things created?

Non-living Things



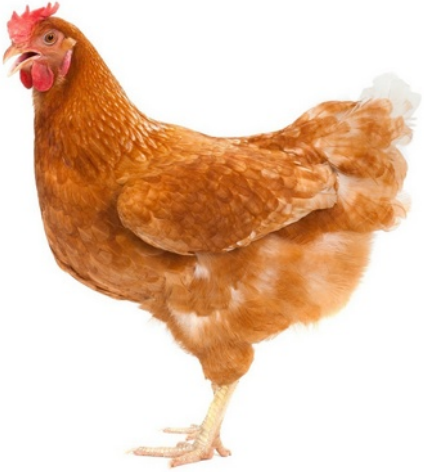
Non-living things are created by living things
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Living Things

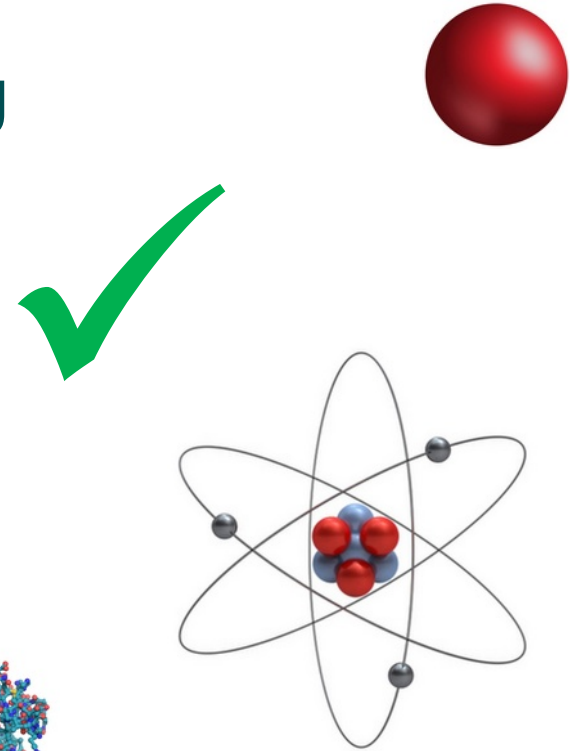


Living things create themselves
from other living things !

Life = Self-creation & Self-maintenance

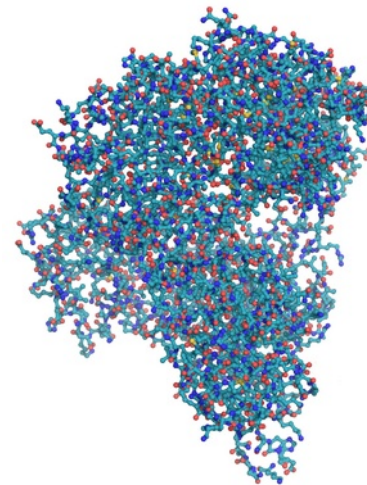


Life is the activity of a living thing
to create its material existence
from other living things
and maintain that existence
despite its hostile environment.

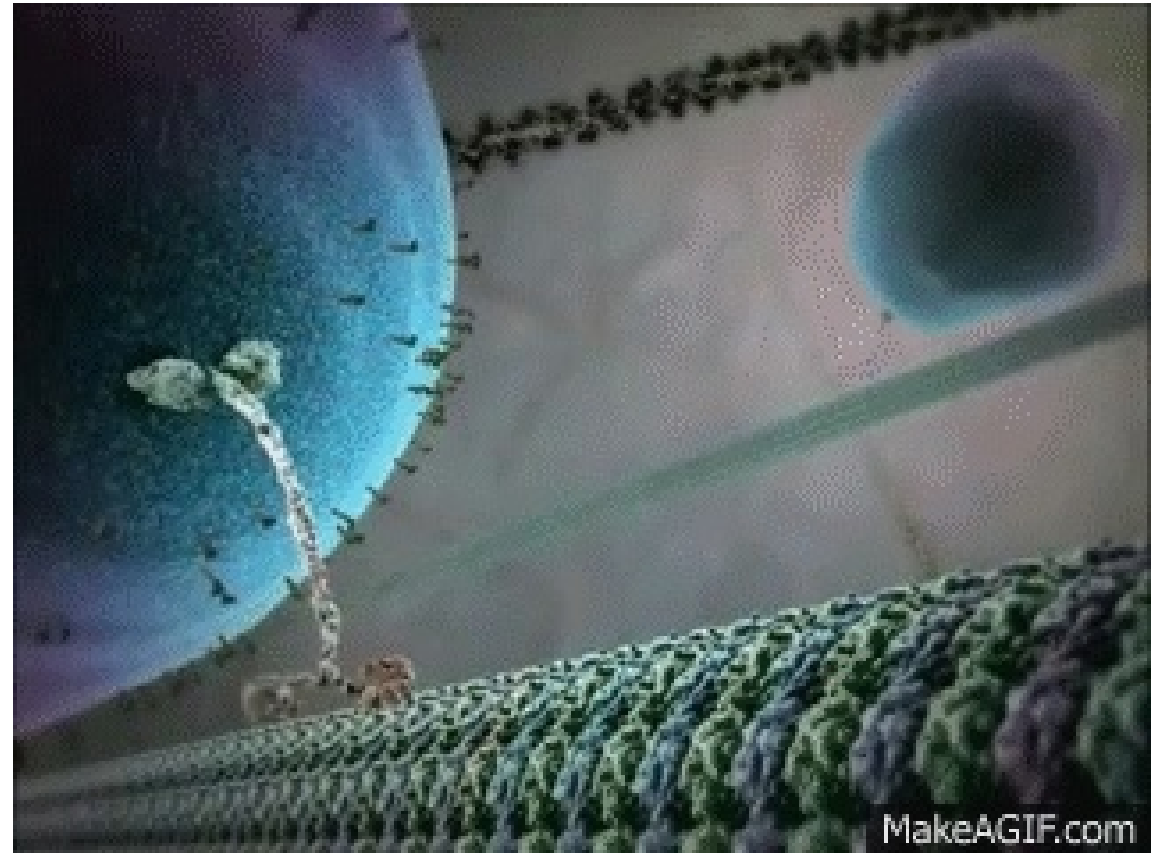
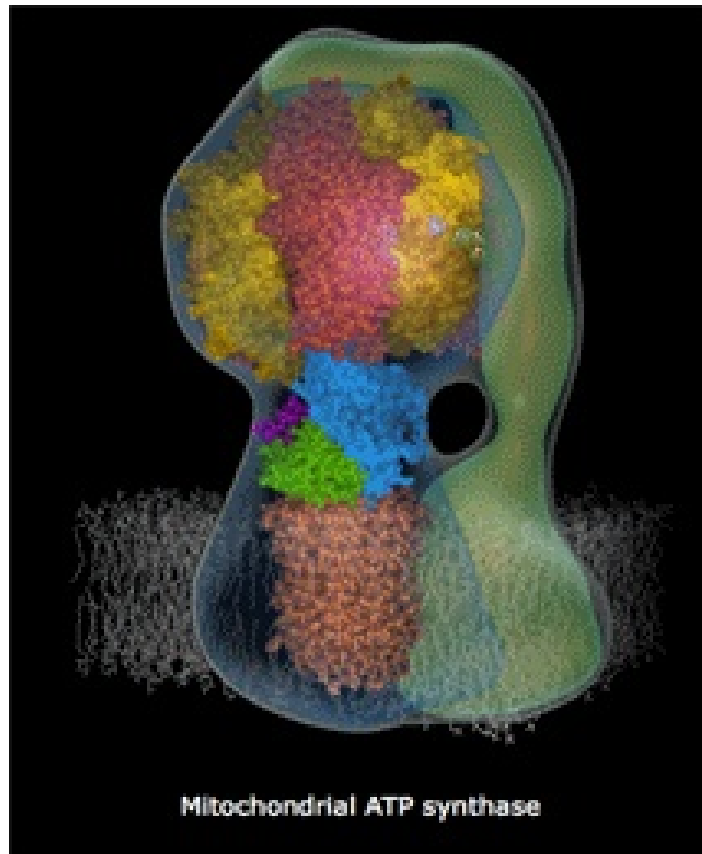


But if this is correct, then ...

- Biogenesis is true : All Life comes from Life !
- There never was a first ever living thing !
- Life has existed for all time !



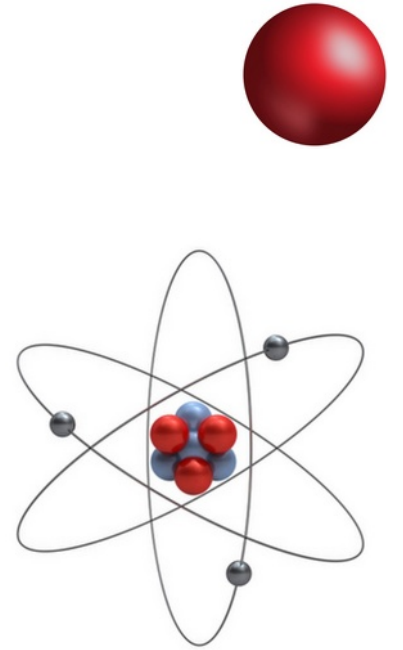
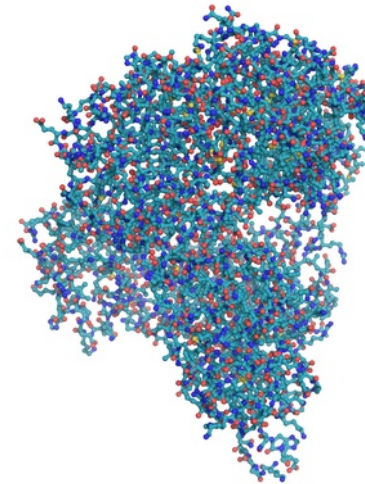
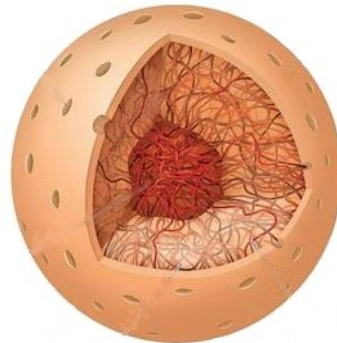
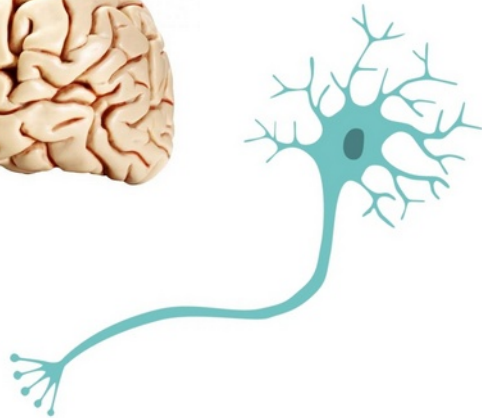
Living molecules



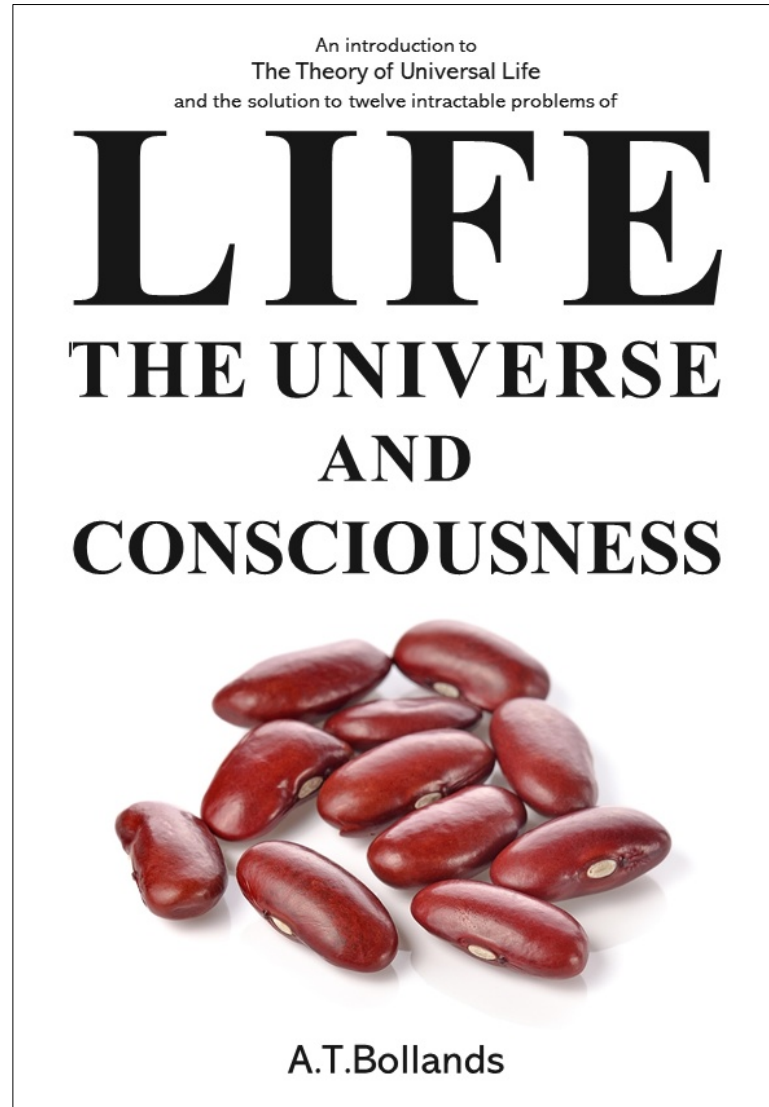
Universal Life



**Every living thing is a
community of other living things
(the Universal Life Hypothesis)**



Available now on Amazon ...



Find me on Twitter @ATBollands

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What is Life?

A family resemblance

LILU - virus, cell, organism, nation

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The maintenance of a state
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information
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Beyond scientific explanation

Is it really not possible to define Life? **Yes, it is !**
Can we exclude machines? **Yes, we can.**

Why only 4 levels? Is there a limit? **There is no limit
(up or down)**

If not from God, then how did Life begin? **It didn't !**

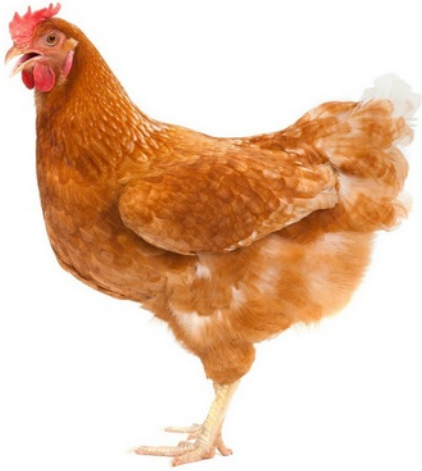
How do they do this? **They are made**
Does "emergence" count as an explanation? **from**
other living things

Circular definition? Is that allowed? **Yes, it is.**

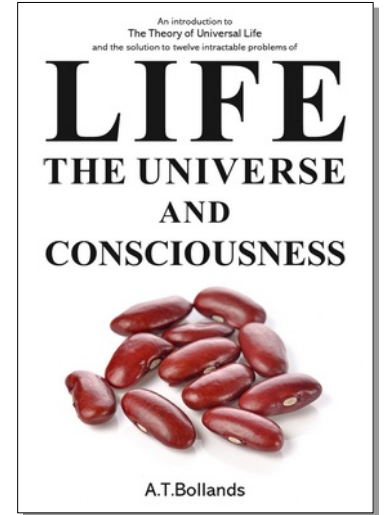
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But, can't the definition be simple? **Yes, it can.**

Is it really beyond science? **No, it isn't.**
Or is our **current** scientific understanding
of Life missing something? **Yes, it is !**

What is Life ?

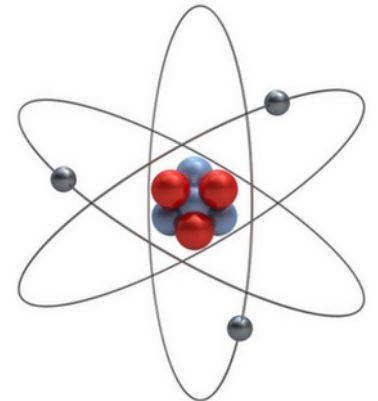


**Life is the activity of a living thing
to create its material existence
from other living things
and maintain that existence
despite its hostile environment.**



Living things exist because ...

**Every living thing is a
community of other living things
(the Universal Life Hypothesis)**

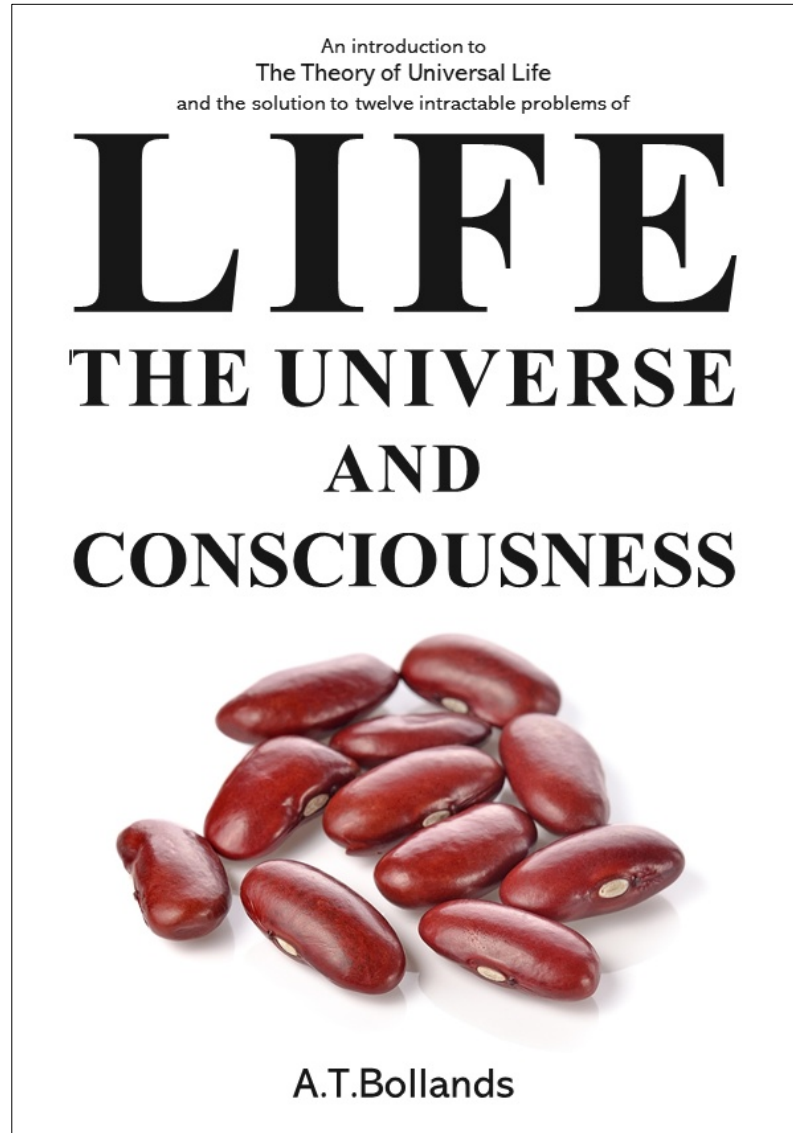




THANK YOU

Insert Image

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