

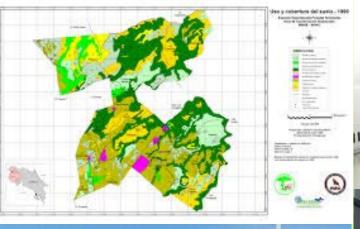
Microbichos por todos lados



Natalia Labrín, Ángel Becerra, Flor Truillo, Alejandra Becerra, Monserrat Rodríguez y Yuri Peña Ecosur Campeche

La biología como ciencia en desarrollo





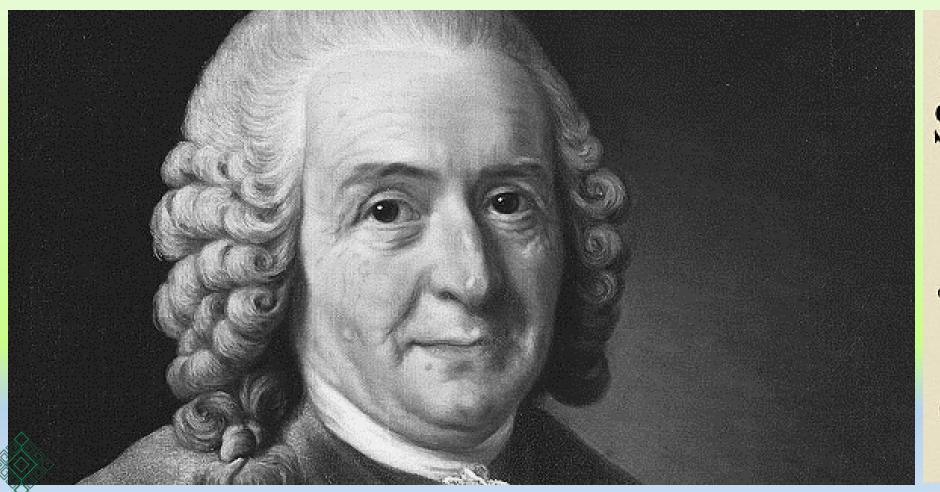








Los padres de la biología. Lineo.



CAROLI LINNÆI

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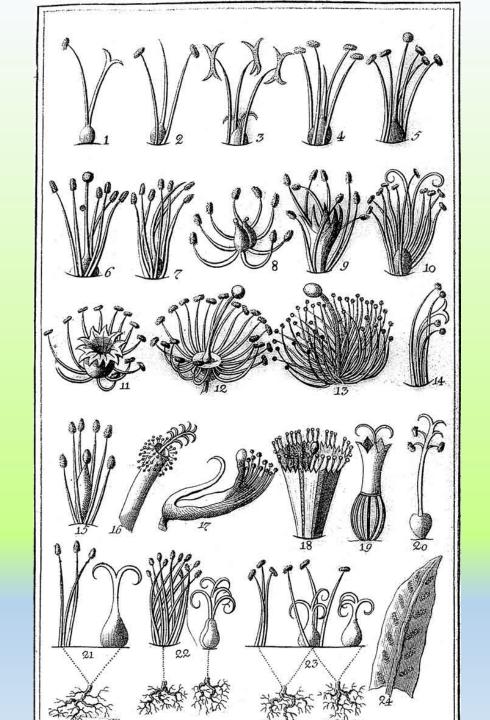
Para resumir y presentar á la primera vista los caracteres clásicos, añadirémos la tabla Sinóptica del mismo autor, con el nombre de Llave del Sistema sexual.

LLAVE

DEL SISTEMA SEXUAL,

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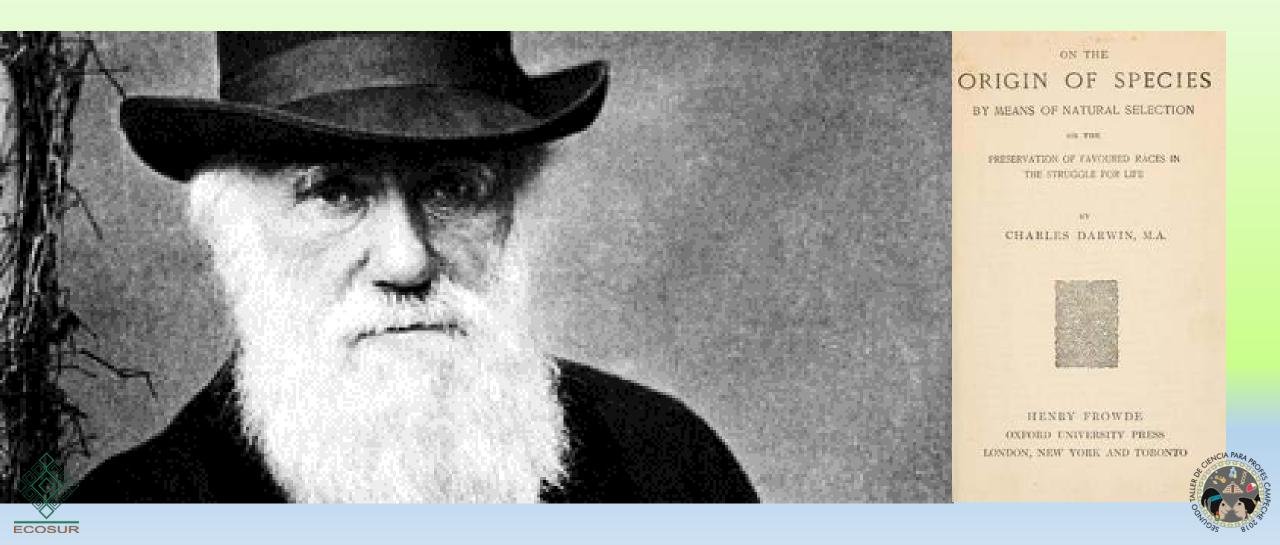
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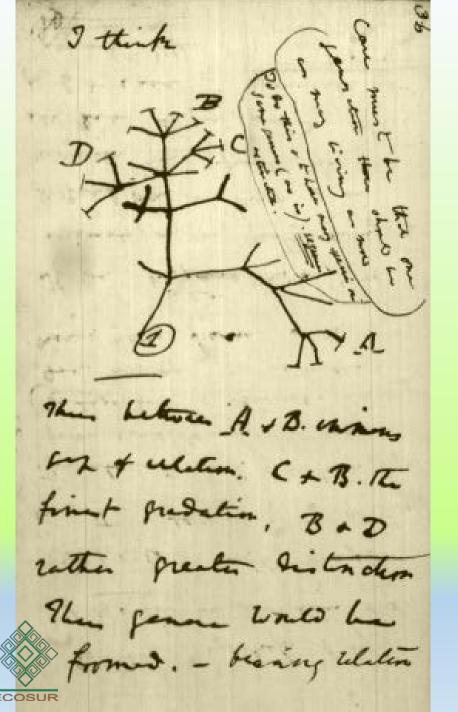


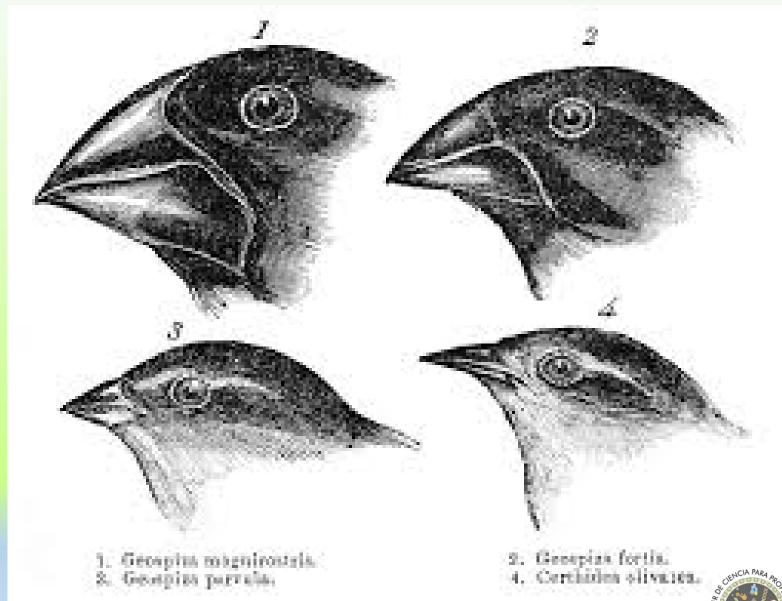




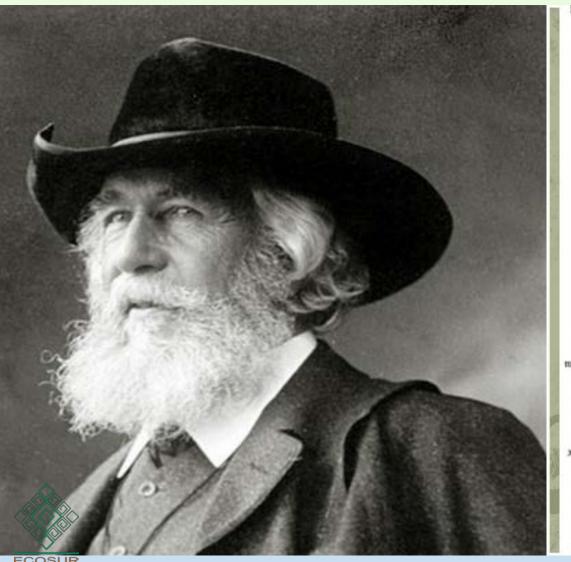
Los padres de la biología. Darwin.

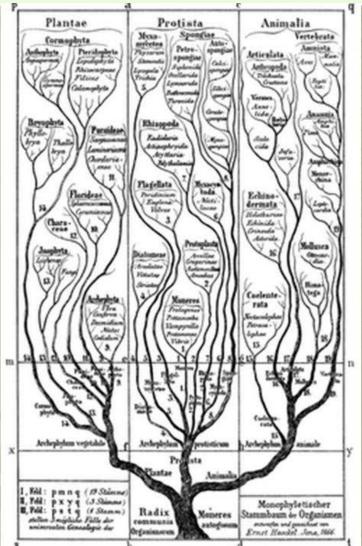






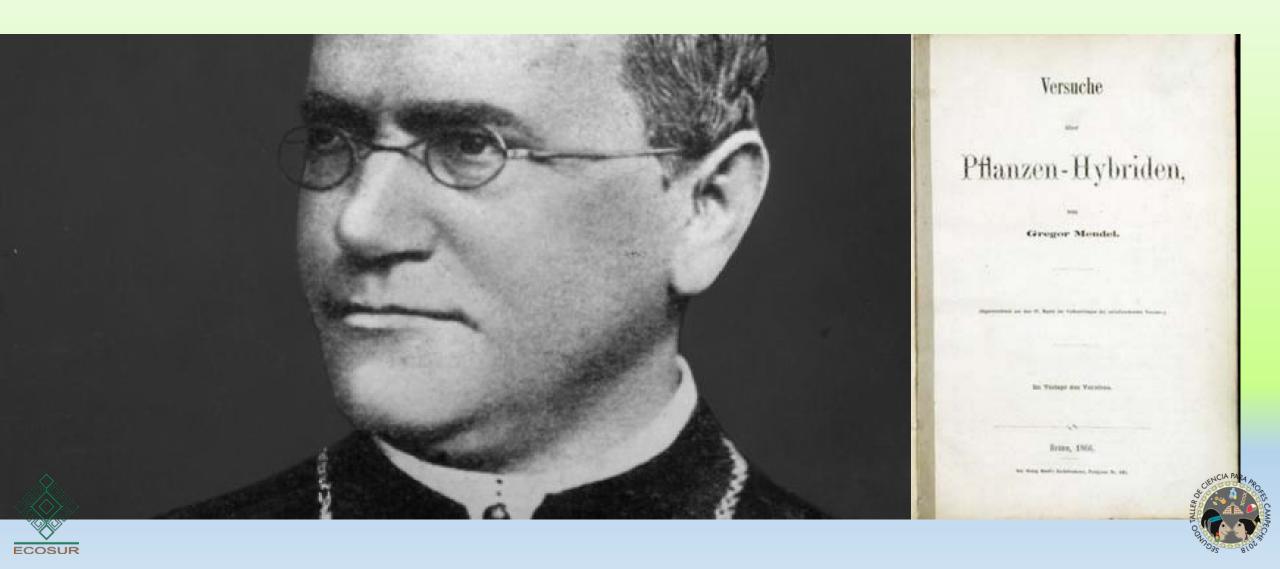
Los padres de la biología. Haeckel

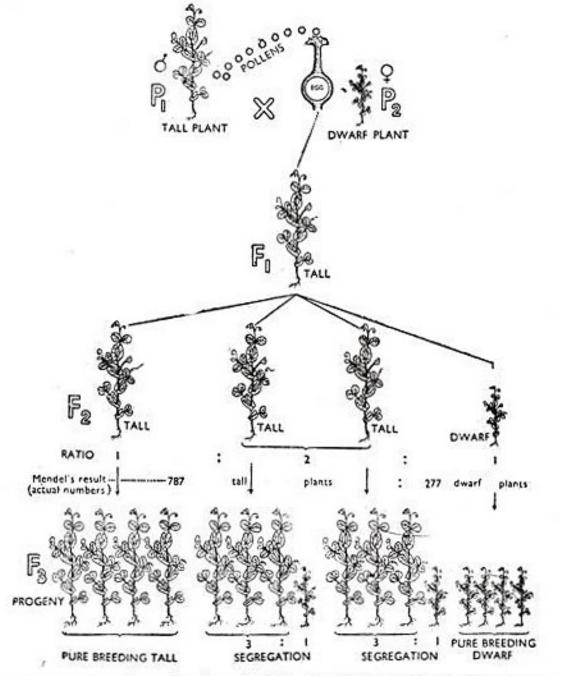






Los padres de la biología. Mendel.







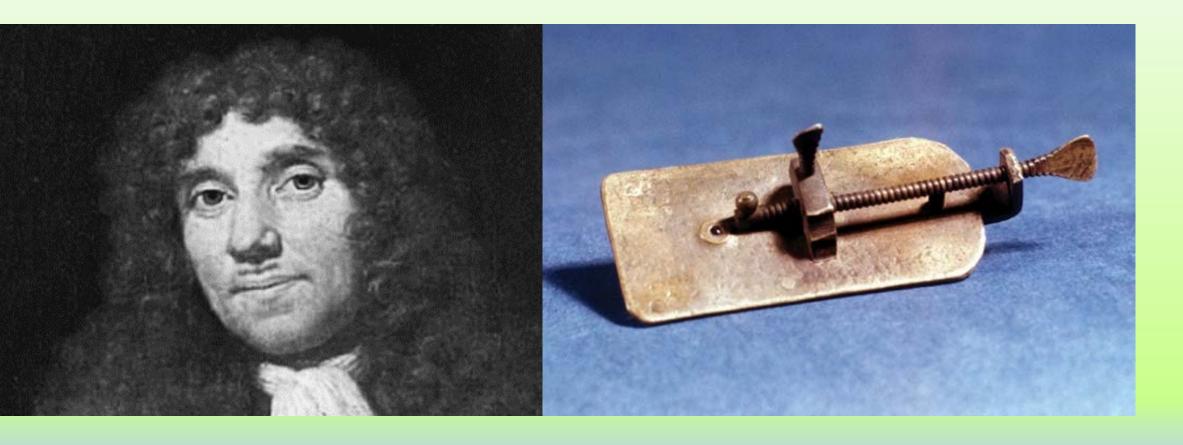
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Fig. 817. Diagram illustrating the result obtained by Mendel in his Tall × Dwarf cross.



Los padres de la microbiología. Leeuwenhoek







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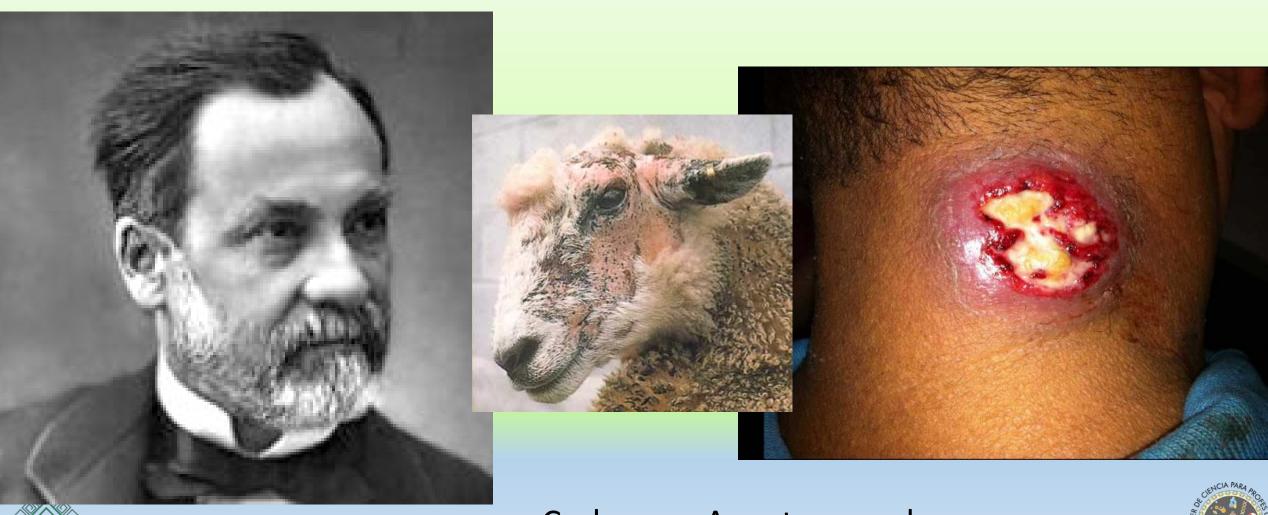
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Los padres de la microbiología. Pasteur



Carbunco: Agente causal

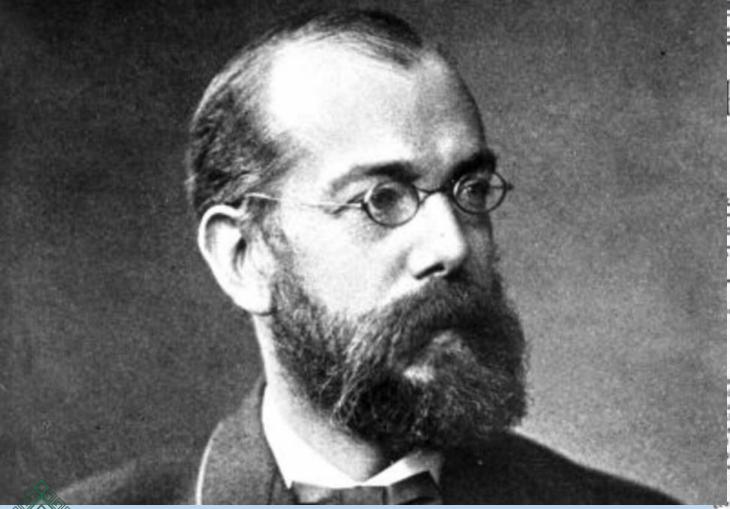








Los padres de la microbiología. Koch



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BERLINER

Brevelingen wille man gartaful as die Erdaule W. Sanggentenmennen (D.) sein as die Erdaule beskinntling von Angest Brendweid in Anti-(X.V., Davier den Littles M.) asjenstein.

KLINISCHE WOCHENSCHRIFT.

Organ für practische Aerzte.

Mit Berücksichtigung der preussischen Medicinalverwaltung und Medicinalgesetzgebung nach amtlichen Mittheilungen.

Cedacteur: freemer Br. C. L. Svaid.

Verlag von Asgot Erschwid is Beris.

ontag, den 10. April 1882.

M. 15.

Neunzehnter Jahrgang

211 J. Kunb: Die Antonogie der Tuteronines. — II. Müller: Deber einen Fall von Wanderleber. — III. Künter: Unter antiseptische Palvorrerbände (Schluss). — IV. Verhandlungen Erstlicher Gesellschaften (Berliper meditinische Gesellschaft). — V. Fenilleten (Kanimaldoseniabelle der Pharmacopoen Germann. ed. II — Tagungwehlschüliche Notines). — VI. Amtliebe Mittheilungen. — Insernte.

I. Die Letiologie der Tuberculose.

ch einem in der physiologischen Gesellschaft au Berlin am 24. Ehrz er, gehaltenen Vortrage.)

Dr. Robert Moch,

Regierungerath im Kaiserl, Gerundbeitungt.

Die von Villemin gemachte Entdeckung, dass die Tubernie auf Thiere übertraghar ist, hat bekanntlich vielfache Retigung, aber unch anscheinend wohlbageundene Widerspruch
unden, so dass es bis vor wenigen Jahren unentschieden
ben musste, ob die Tuberenlose eine Infectionskrankheit sei
r nicht. Seitdem haben aber die nuerst von Cohnheim
i Salamannen, später von Raumgarten anngeführten
pfungen in die vorders Anguskammer, farner die Inhalationseuche von Tappninner und Anderen die Uebertragbarkeit
Tuberenlose gegen jeden Zweifel nicher gestellt und er mass
in Zuknuft ein Platz unter den Infectionsbrankheiten anvienen werden.

und die zum Zwenke der Jenlirung und Züchtung des Toberkel-Virus angestelltun Versuche konntan bis jetzt nicht als gelungen angesteben werden, so dass Colenheim in der sorben ernthienenen nouesten Anflage neiner Vorlesungen über allgemeine Pathologie "den directen Nachweis den taberenlösen Virus als nie hie heute noch angeifieter Problem" bezeichnen masste.

Bei meinen Untersuchungen über die Tuberculose habe ich mich anlange nuch der bekannten Methoden bedient, ohne damit eine Aufklärung über das Wenen der Krankbeit zu erlangen. Aber dürch einige gelegentliche Beobachtungen wurde ich dann vernalannt, diese Methoden zu verlanen und andere Wege einzunchlagen, die schliesnlich nuch zu ponitiven Resultaten führten.

Das Ziel der Untersechung mossie auskehnt auf den Kachweis von irgend welchen, dem Edepur freundartigen, parasitischen
Gebilden geriehtet sein, die möglicherweise als Ernakheitesrenche gedentet werden knonten. Dieser Nachweg, gelang
auch in der That dereh ein bestimmtes Färle unter
Hälfe desem in allen tuberculöt veränderteg.



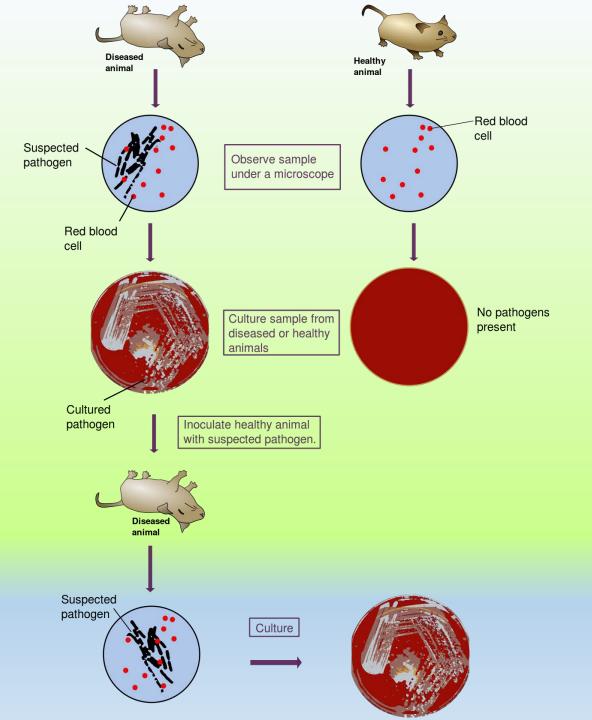
Koch's Postulates:

① The microorganism must be found in abundance in all organisms suffering from the disease, but should not be found in healthy organisms.

② The microorganism must be isolated from a diseased organism and grown in pure culture.

3 The cultured microorganism should cause disease when introduced into a healthy organism.

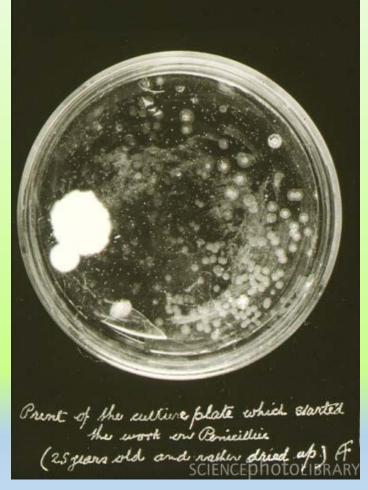
The microorganism must be reisolated from the inoculated, diseased experimental host and identified as being identical to the original specific causative agent.



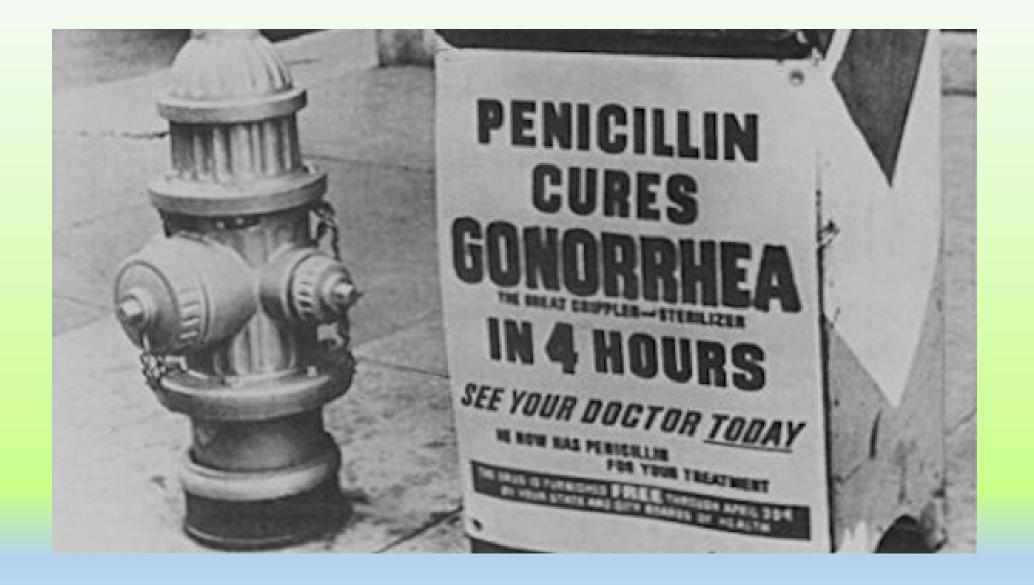


Los padres de la antimicrobiología.









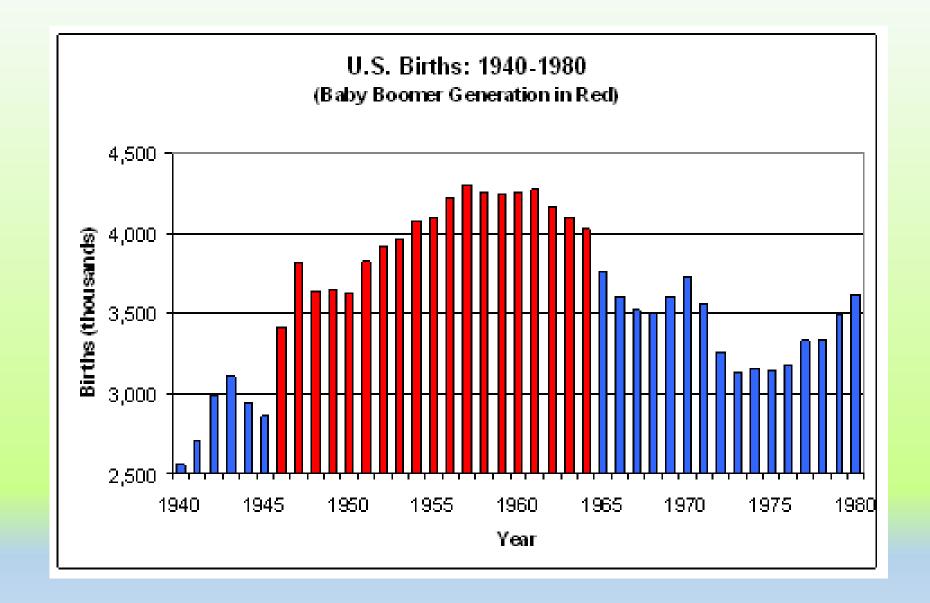












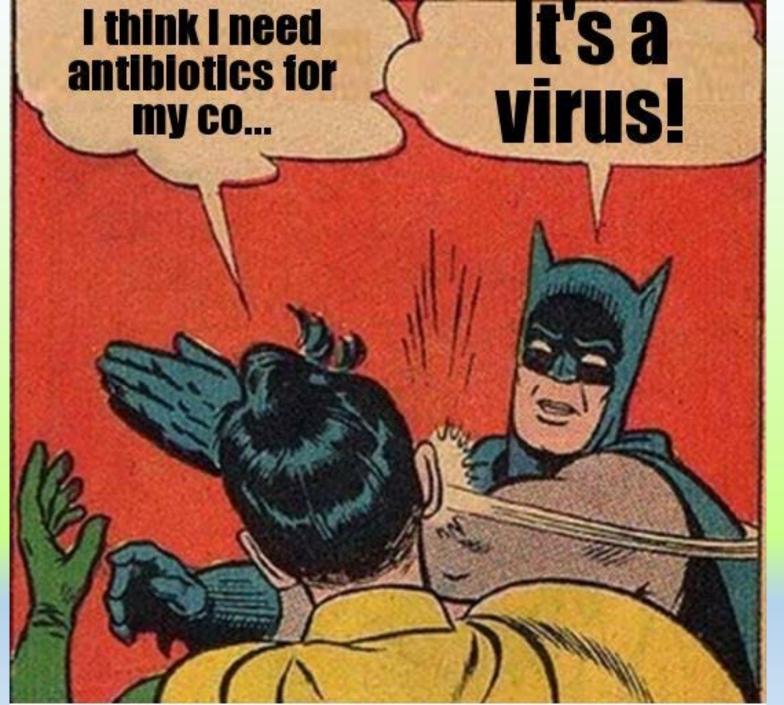






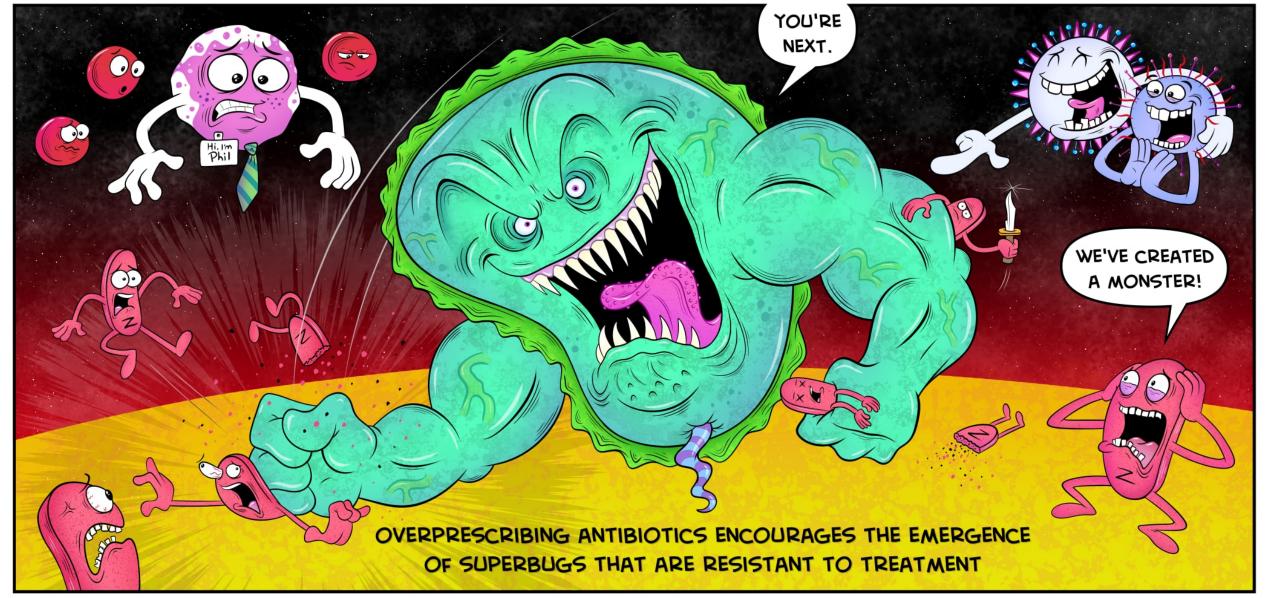








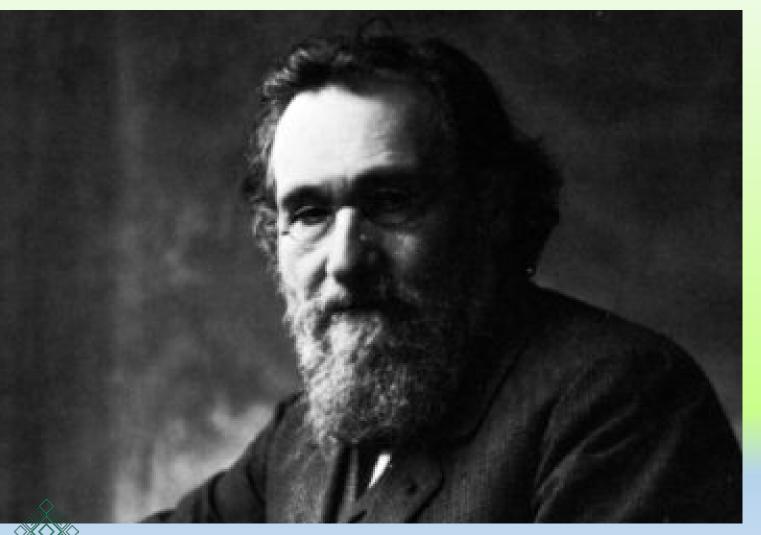


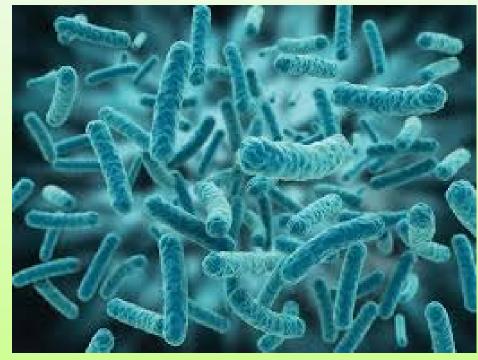


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El padre de los probióticos: Metchnikoff











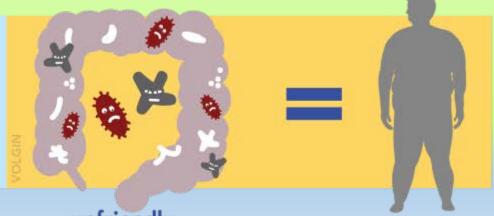


HEALTHY MICROBIOME = HEALTHY BODY



friendly microorganisms

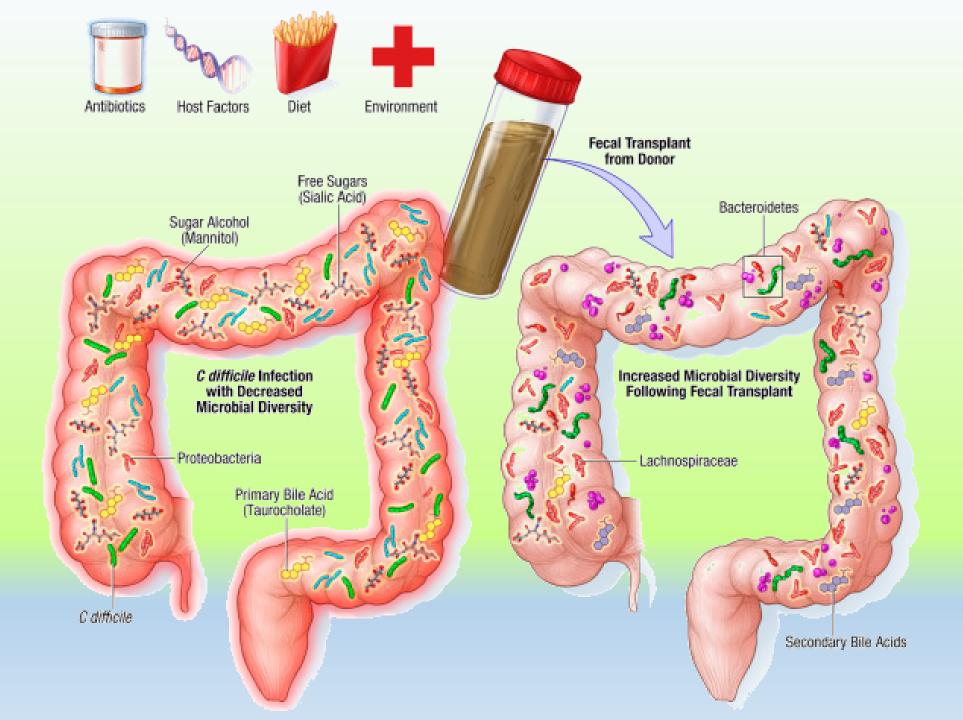
UNHEALTHY MICROBIOME = SICK BODY





O TAILER

© VOLGIN













Práctica de visualización de microbiomas cultivables

1) Preparación de medios de cultivo

- 2) Inocular microbiomas distintos
 - Mano lavada vs no lavada
 - Mano vs boca
 - Mano izquierda vs mano derecha
 - Hoja vs raíz
 - Etc.







Microbichos por todos lados



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Muestras ambientales





Biología molecular

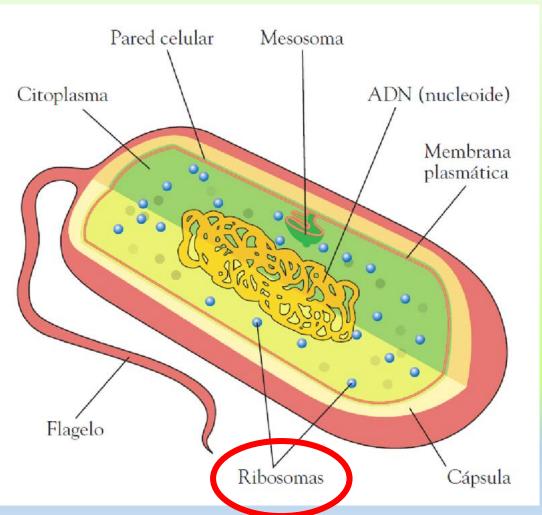
Microbiología clásica



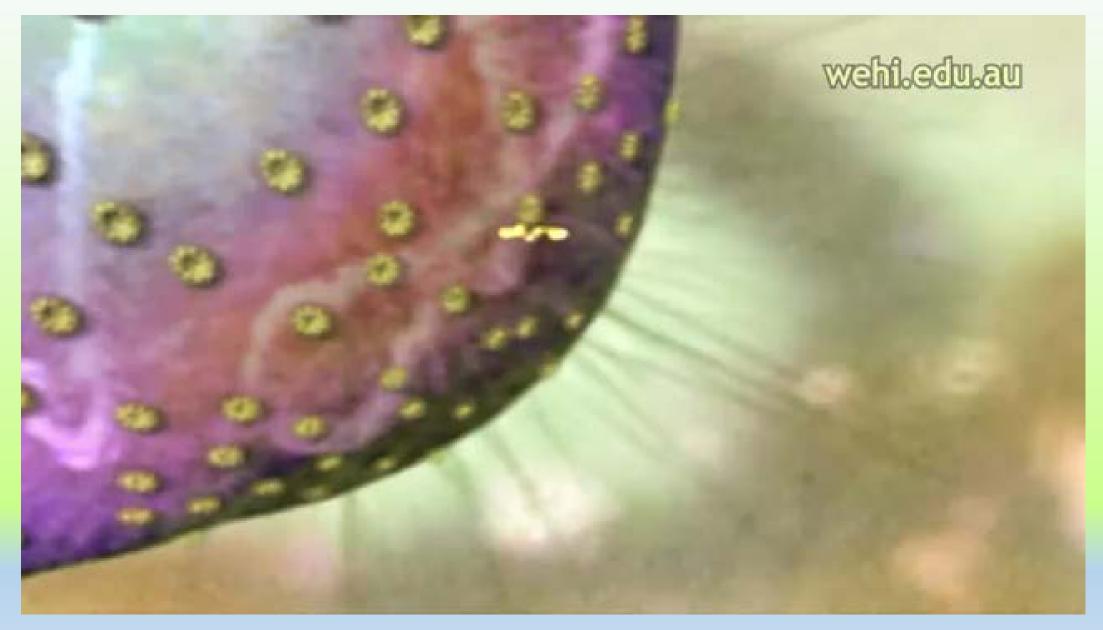


Los padres de la ecología microbiología: Pace





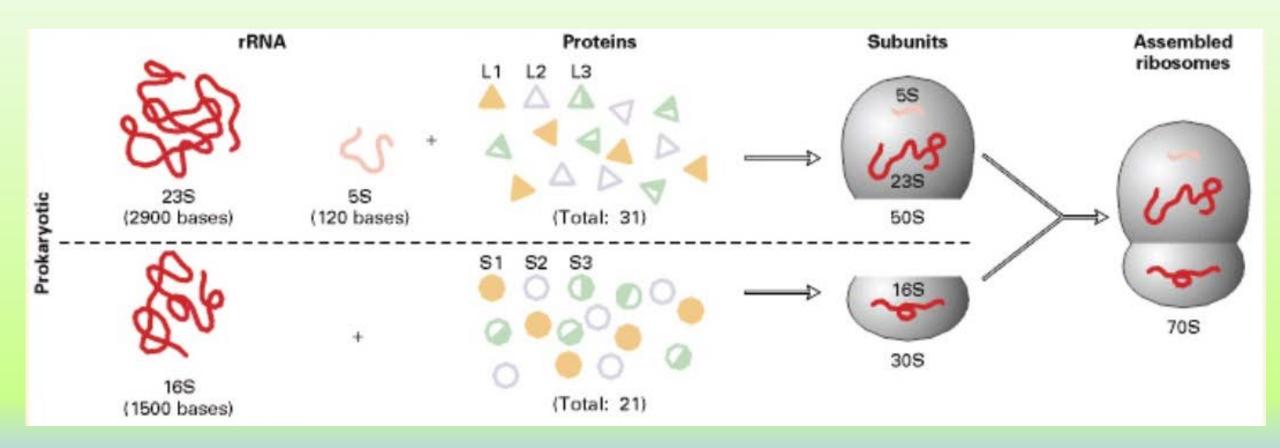








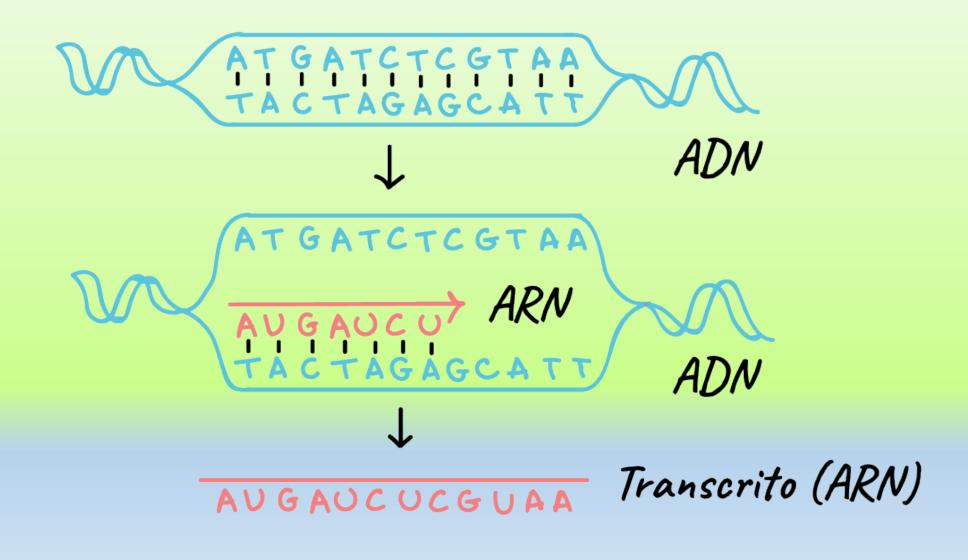
El ribosoma tiene moléculas de ARN





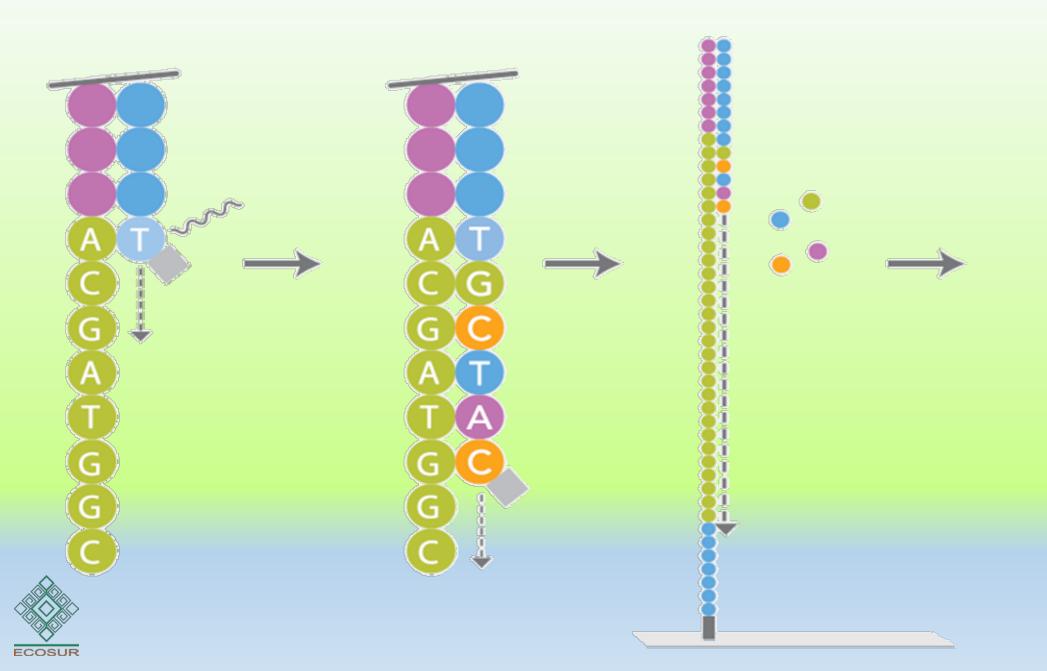


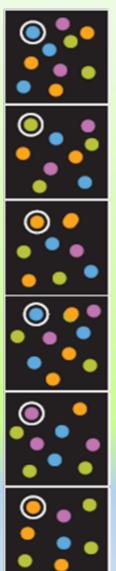
El ARN se copia a partir del ADN











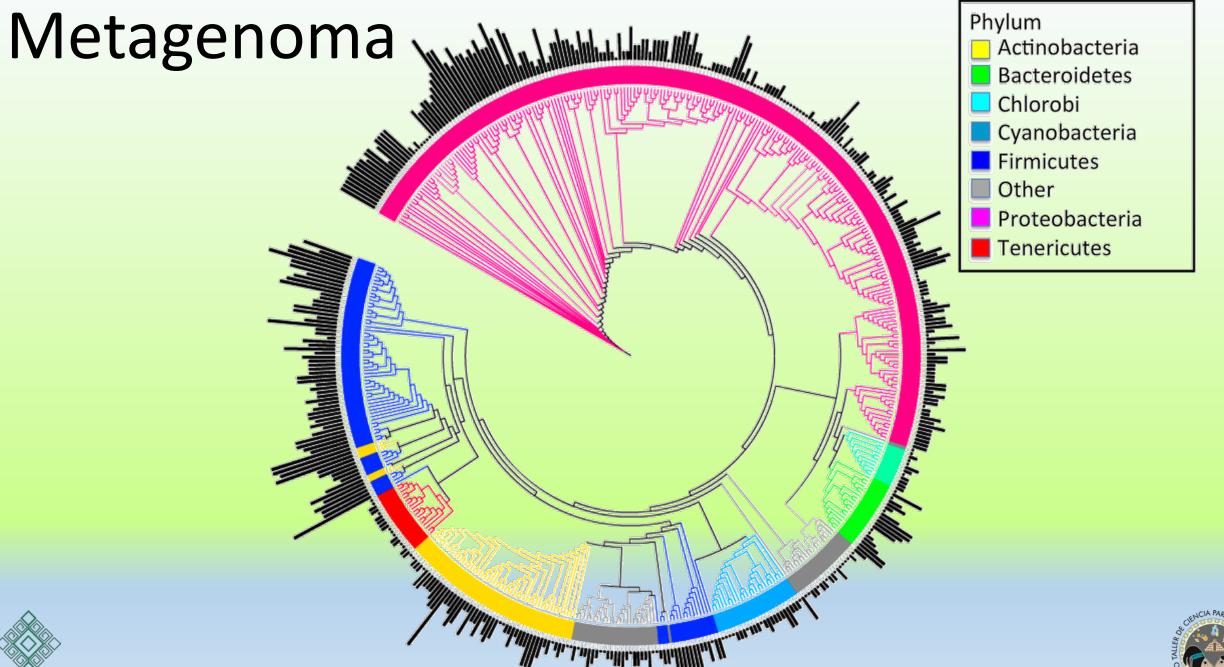




Comparación de secuencias en BLAST



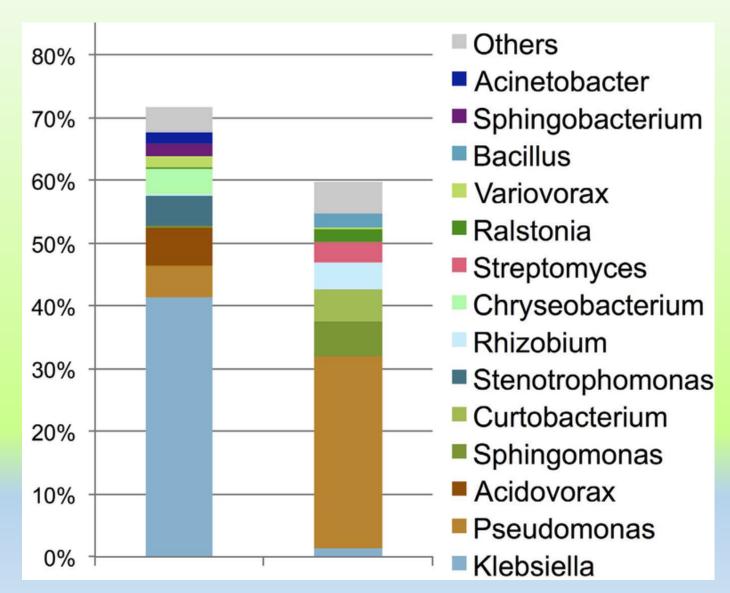








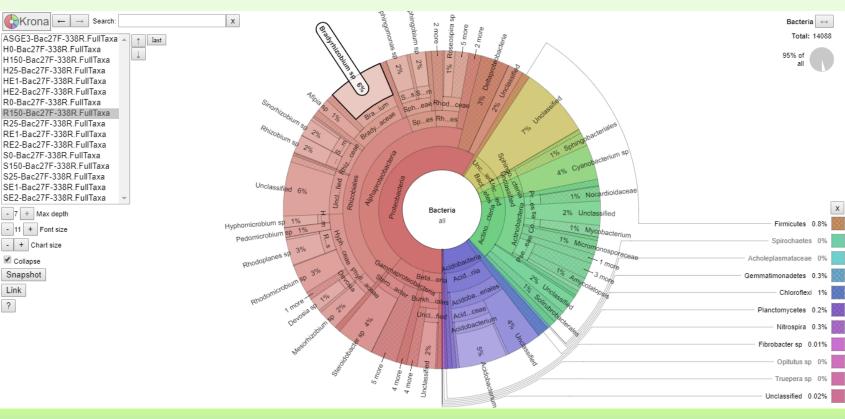
Comparación de metagenomas

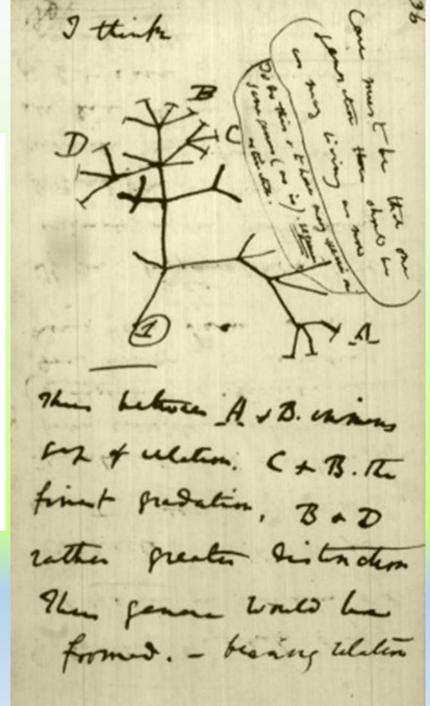






De la mano de Darwin







Muchas gracias!!! Espero les haya gustado

Hasta pronto!!!