Scienza patrimonio dell'umanità

- I dati sperimentali, le sequenze di acidi nucleici, le strutture delle proteine e la lista delle pubblicazioni "peer-review" è consultabile da tutti gratuitamente, basta avere accesso alla rete!

I dati biologici sono di tutti

Banche dati di sequenze

- NCBI (http://www.ncbi.nlm.nih.gov/)
- EBI (http://www.ebi.ac.uk/)
- PDB (http://www.rcsb.org/pdb/home/home.do)

Banche dati di reperti fossili

- Paleobiology Database (http://fossilworks.org/?a=home)

La letteratura scientifica

a portata di click!

PubMed

- c'è un tutorial per ogni cosa (a patto di capire l'inglese) : http://www.nlm.nih.gov/bsd/disted/pubmed.html
- **Proviamo noi a fare qualche esercizio:**

1. Abbiamo letto che una certa ricerca è stata pubblicata su "PNAS":
   - Risaliamo al nome completo della rivista: PNAS
   - verifichiamo se gli articoli di questa rivista sono accessibili gratuitamente da rete;

2. Accedete con PubMed alla lista di pubblicazioni di Elisa Corteggiani Carpinelli. Provate con il nome completo o solo con una parte del nome con le iniziali e vediamo se ci sono differenze.

3. Ricerchiamo un articolo in PUBMED rispettando le fasi sotto elencate:
   - cerchiamo un articolo inerente a **Nannochloropsis**, in particolare a Nannochloropsis gaditana (N. gaditana)
   - diamo un'occhiata agli anni di pubblicazione
   - focalizziamo l'attenzione sul **genoma**
   - quanti hanno nel titolo la parola "**chromosome**" OPPURE "**draft**" (indicano due misure alternative di quanto è stato risolto il genoma).

Durante la ricerca ricordate di utilizzare gli operatori booleani (AND, OR...) e i limiti.

possiamo fare questo esercizio a partire da qualsiasi notizia di scoperta scientifica che compare su un giornale e verificare la fonte di questa notizia se c'è

Verifichiamo le informazioni riportate nei seguenti articoli usciti qualche tempo fa

http://www.repubblica.it/scienze/2014/05/07/news/dna_espanso_basi_artificiali-85497745/ ;

http://www.liberoquotidiano.it/news/11608390/Dna--verso-la-vita-artificiale.html

- cerchiamo su Pubmed l'articolo scientifico a cui si fa riferimento negli articoli
- quali sono i risultati della ricerca sperimentale?
- Serve un vocabolario più grande per fare più parole?

Più lettere = più parole?

Più lettere = più parole?

- abbiamo 4 basi per formare un codone
  $4^3=64$ combinazioni possibili
- se le basi diventassero 5
  $5^3=125$ combinazioni possibili
- se la lunghezza delle parole diventasse 4 invece che 3
  $4^4=256$

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- ma gli aminoacidi sono solo 20 e un codone fa da stop!

Il caso stamina nell'informazione

- cosa vi ricordate dell'informazione che avete ricevuto?

Il caso stamina nell'informazione

- cosa vi ricordate dell'informazione che avete ricevuto?

Il caso stamina nella letteratura

- cerchiamo i dati su cui basare le nostre considerazioni:
  - il giornale scientifico nature ci fornisce qualche link ai protocolli di Vannoni
  - un lavoro “peer-review” che indaga l’argomento
  - la buona pratica clinica e perché

Quanto ci fidiamo del peer-review?

EARLY REPORT

Early report

Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, A P Dhillon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith

Summary

Background We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

Methods 12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI), electroencephalography (EEG), and lumbar puncture were done under sedation. Barium follow-through radiography was done where possible. Biochemical, haematological, and immunological profiles were examined.

Findings Onset of behavioural symptoms was associated, by the parents, with measles, mumps, and rubella vaccination in eight of the 12 children, with measles infection in one child, and otitis media in another. All 12 children had intestinal abnormalities, ranging from lymphoid nodular hyperplasia to aphthoid ulceration. Histology showed patchy chronic inflammation in the colon in 11 children and reactive ileal lymphoid hyperplasia in seven, but no granulomas. Behavioural disorders included autism (nine), disintegrative psychosis (one), and possible postviral or vaccinal encephalitis (two). There were no focal neurological abnormalities and MRI and EEG tests were normal. Abnormal laboratory results were significantly raised urinary methylmalonic acid compared with age-matched controls (p=0·003), low haemoglobin in four children, and a low serum IgA in four children.

Interpretation We identified associated gastrointestinal disease and developmental regression in a group of previously normal children, which was generally associated in time with possible environmental triggers.

Lancet 1998; **351:** 637–41

See Commentary page 611

Inflammatory Bowel Disease Study Group, University Departments of Medicine and Histopathology (A J Wakefield FRCS, A Anthony MB, J Linnell PhD, A P Dhillon MRCPath, S E Davies MRCPath) **and the University Departments of Paediatric Gastroenterology** (S H Murch MB, D M Casson MRCP, M Malik MRCP, M A Thomson FRCP, J A Walker-Smith FRCP), **Child and Adolescent Psychiatry** (M Berelowitz FRCPsych), **Neurology** (P Harvey FRCP), **and Radiology** (A Valentine FRCR), **Royal Free Hospital and School of Medicine, London NW3 2QG, UK**

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Introduction

We saw several children who, after a period of apparent normality, lost acquired skills, including communication. They all had gastrointestinal symptoms, including abdominal pain, diarrhoea, and bloating and, in some cases, food intolerance. We describe the clinical findings, and gastrointestinal features of these children.

Patients and methods

12 children, consecutively referred to the department of paediatric gastroenterology with a history of a pervasive developmental disorder with loss of acquired skills and intestinal symptoms (diarrhoea, abdominal pain, bloating and food intolerance), were investigated. All children were admitted to the ward for 1 week, accompanied by their parents.

Clinical investigations

We took histories, including details of immunisations and exposure to infectious diseases, and assessed the children. In 11 cases the history was obtained by the senior clinician (JW-S). Neurological and psychiatric assessments were done by consultant staff (PH, MB) with HMS-4 criteria.[1] Developmental histories included a review of prospective developmental records from parents, health visitors, and general practitioners. Four children did not undergo psychiatric assessment in hospital; all had been assessed professionally elsewhere, so these assessments were used as the basis for their behavioural diagnosis.

After bowel preparation, ileocolonoscopy was performed by SHM or MAT under sedation with midazolam and pethidine. Paired frozen and formalin-fixed mucosal biopsy samples were taken from the terminal ileum; ascending, transverse, descending, and sigmoid colons, and from the rectum. The procedure was recorded by video or still images, and were compared with images of the previous seven consecutive paediatric colonoscopies (four normal colonoscopies and three on children with ulcerative colitis), in which the physician reported normal appearances in the terminal ileum. Barium follow-through radiography was possible in some cases.

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Thyroid function, serum long-chain fatty acids, and cerebrospinal-fluid lactate were measured to exclude known causes of childhood neurodegenerative disease. Urinary methylmalonic acid was measured in random urine samples from eight of the 12 children and 14 age-matched and sex-matched normal controls, by a modification of a technique described previously.[2] Chromatograms were scanned digitally on computer, to analyse the methylmalonic-acid zones from cases and controls. Urinary methylmalonic-acid concentrations in patients and controls were compared by a two-sample *t* test. Urinary creatinine was estimated by routine spectrophotometric assay.

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How many vaccines will your child get?

AT BIRTH
- HepB

ONE MONTH
- HepB

TWO MONTHS
- RV
- DTaP - each shot has 3 vaccines
- Hib - each shot has 2 vaccines
- PCV - each shot has 8 vaccines
- IPV

4 MONTHS
- RV
- DTaP - each shot has 3 vaccines
- Hib - each shot has 2 vaccines
- PCV - each shot has 8 vaccines
- IPV

6 MONTHS
- RV
- DTaP - each shot has 3 vaccines
- Flu
- HepB
- Hib - each shot has 2 vaccines
- PCV - each shot has 8 vaccines
- IPV

12 MONTHS
- HepA
- Hib - each shot has 2 vaccines
- PCV - each shot has 8 vaccines
- MMR - each shot has 3 vaccines
- Varicella

15 MONTHS
- DTaP - each shot has 3 vaccines

18 MONTHS
- Flu - annually throughout lifetime
- HepA

4-6 YEARS
- DTaP - each shot has 3 vaccines
- IPV
- MMR - each shot has 3 vaccines
- Varicella

11-12 YEARS
- MCV
- Tdap
- HPV- 3 doses

Too many.

Your child may receive up to 81 vaccines by six years of age.

Vaccination injects bacteria, viruses, genetic material and many other biological and toxic chemicals (mercury, aluminum, formaldehyde, acids) deep into the child's body, where they have access to internal organs (including the brain). The results are a host of illnesses that were rare or non-existent before mass vaccination. These conditions include, but are not limited to, the following:

Autism, juvenile diabetes, juvenile rheumatoid arthritis, reading problems, language difficulties, asthma, allergies, attention deficit disorder (ADD), ADHD, brain tumors, cancer, osteosarcoma, lupus erythematosus, dyslexia, abnormal behavior, deafness, hearing impairment, autoimmune diseases, hyperactivity, death, inflammatory bowel disease, irritable bowel disease, juvenile arthritis, brain inflammation, infantile spasms, seizures, epilepsy, convulsions, increased intracranial pressure, demyelinating disease, SIDS (crib death), Asperger's syndrome, pervasive developmental disorder, vision problems, otitis media (ear infection), upper respiratory tract infection, vomiting, fever, loss of I.Q. points, gastroenteritis, rash, croup, hives, eczema, colitis, choking, holding breath, thrush, wheezing, pneumonia, bronchiolitis, influenza, vomiting, conjunctivitis, focal swelling, irritable child, permanent brain damage, encephalopathy (brain inflammation), sepsis, arthralgias (painful joints), nausea, headache, cardiac arrhythmias, syncope (fainting), cranial nerve paralysis, anaphylaxis, Guillain-Barré syndrome, Kawasaki disease (inflammation of heart and blood vessels), skin diseases, skin rashes, kidney disorders (including kidney failure), shingles, tuberculosis, carpal tunnel syndrome, paralytic disease, aseptic meningitis, Hodgkin's Disease and non-Hodgkin's lymphoma, atopic dermatitis, skin conditions

Vaccines
DTaP/Tdap Diptheria, tetanus & pertussis
Flu Influenza

Note: These numbers, based on the 2009 CDC recommended schedule, are conservative as they do not include shots that are recommended for certain populations and there are currently over 200 additional vaccines in development.
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TDI • P40Pv3

Make an informe

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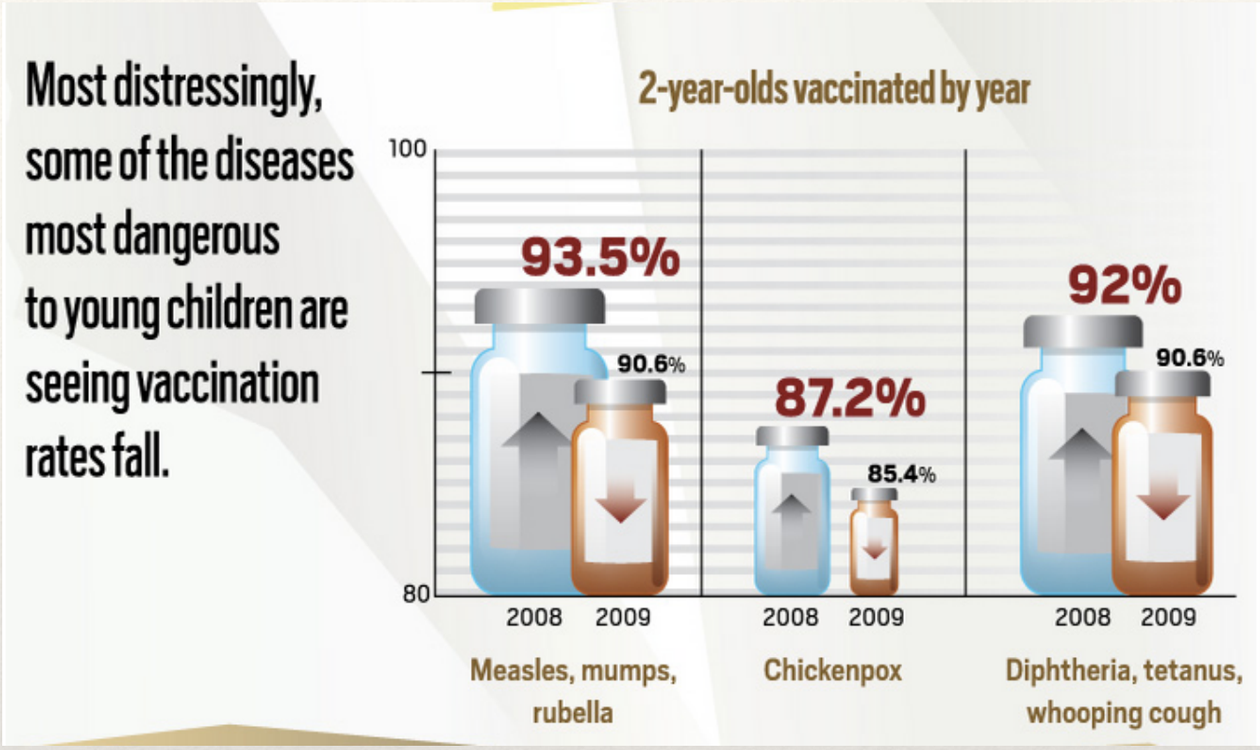
RETRACTED



La rete è una fonte di informazioni ricchissima

sono i nostri strumenti culturali che ci aiutano a verificare l’attendibilità delle notizie e dei dati che troviamo nella rete

E’ vero anche quando usiamo google!

sulle notizie scientifiche abbiamo due marce in più: la capacità di consultare la letteratura scientifica e il nostro intelletto critico