

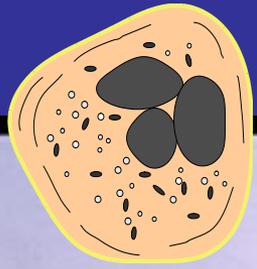


Verona 1989-2009: vent'anni di ricerca di frontiera

Paolo Bellavite

Università of Verona

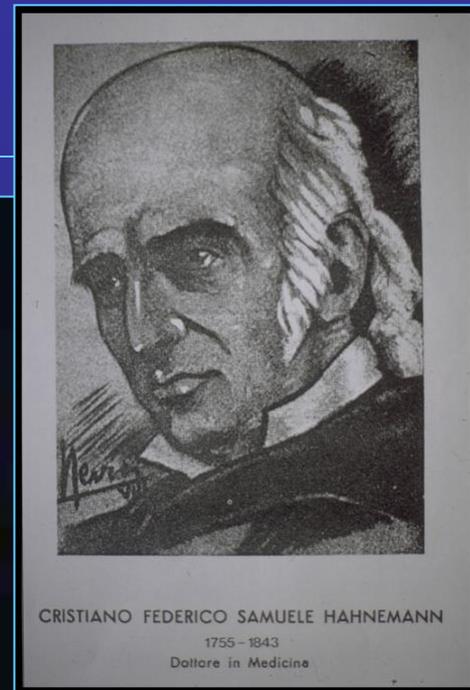
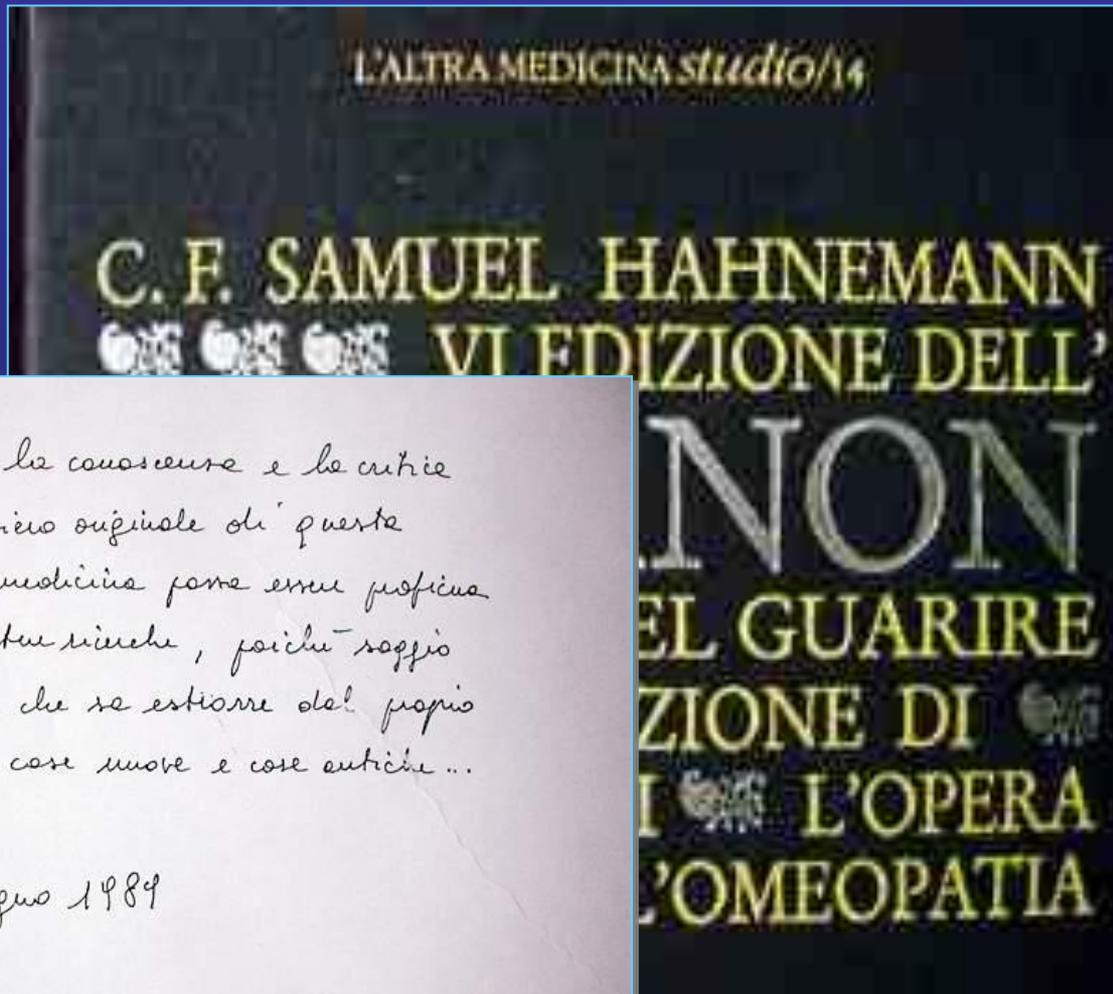




Le origini



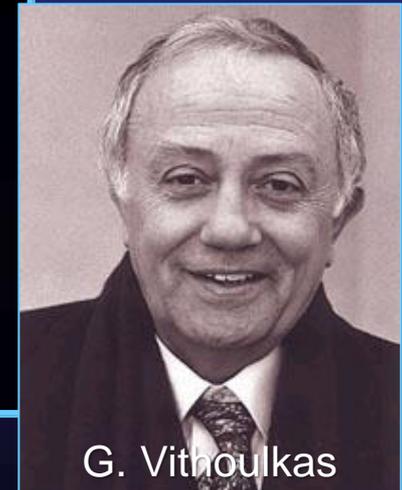
Le "fonti"



... perché la conoscenza e le critiche
del principio originale di questa
nuova medicina sono ormai proficua
per le tue ricerche, poiché saggio
è colui che sa estirpare dal proprio
tesoro cose nuove e cose antiche...

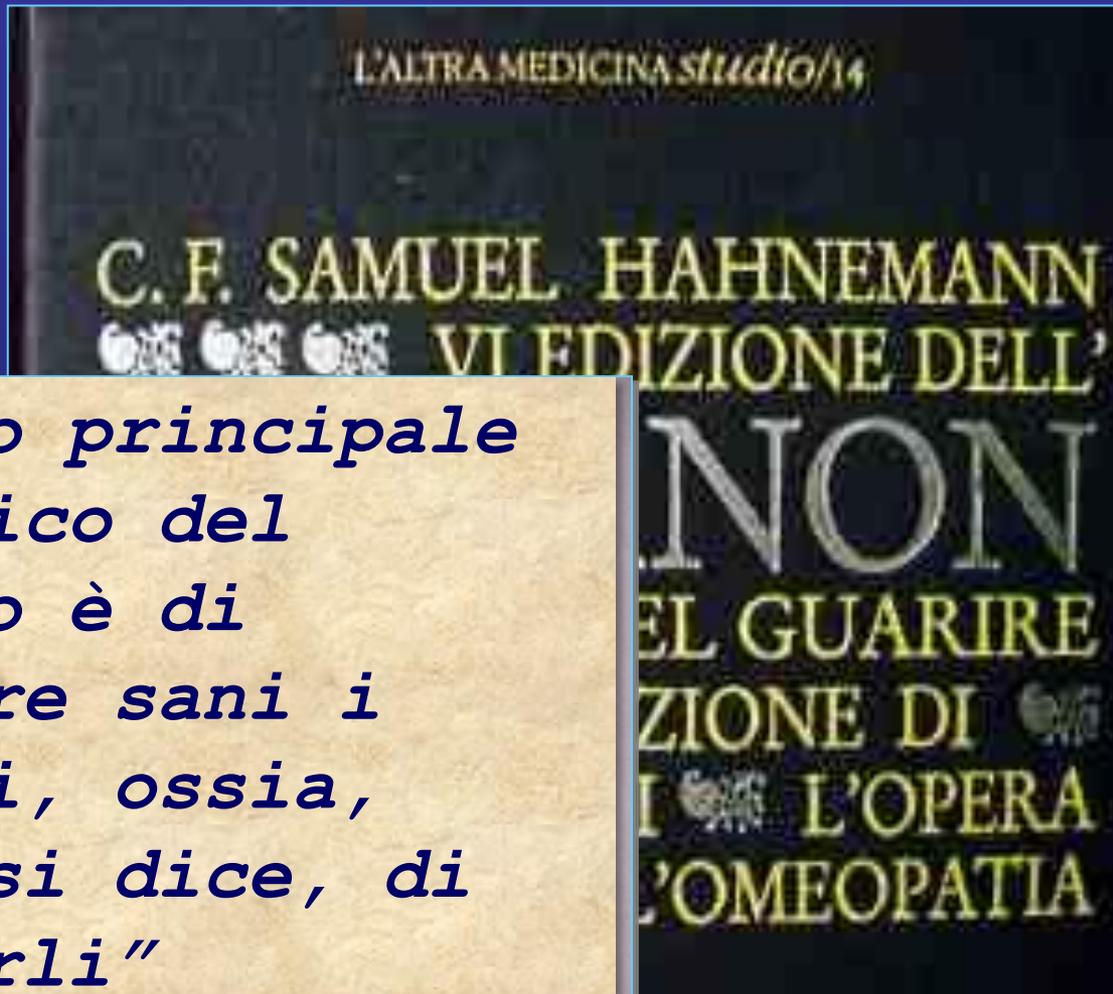
19 giugno 1989

Quirino

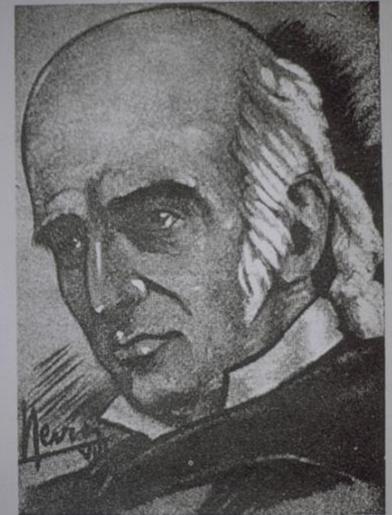


G. Vithoukas

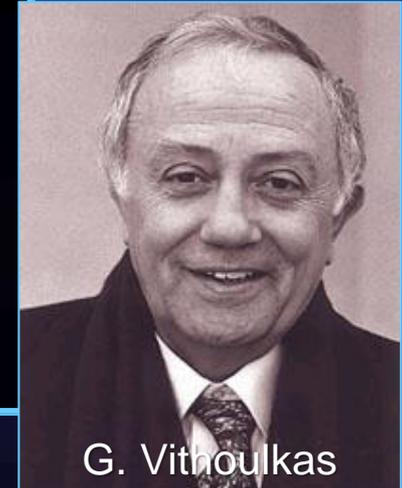
Le "fonti"



"Scopo principale ed unico del medico è di rendere sani i malati, ossia, come si dice, di guarirli"
(par. 1)

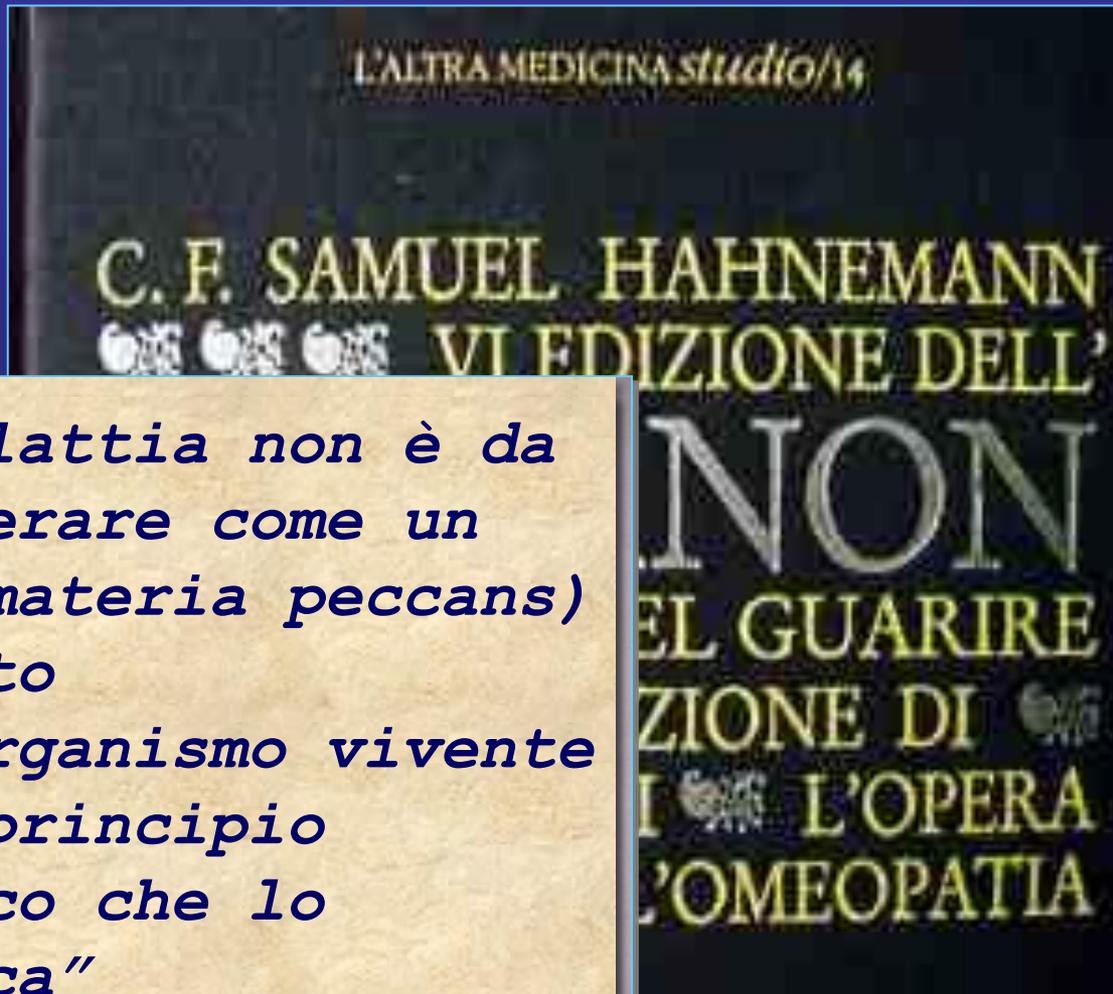


CRISTIANO FEDERICO SAMUELE HAHNEMANN
1755 - 1843
Dottore in Medicina

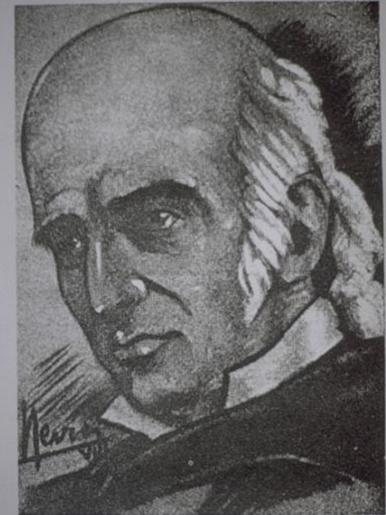


G. Vithoukas

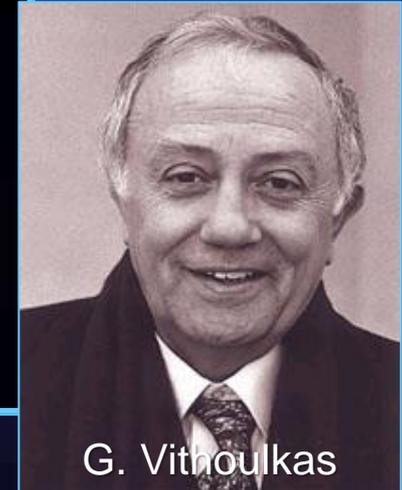
Le "fonti"



*"la malattia non è da considerare come un quid (materia peccans) separato dall'organismo vivente e dal principio dinamico che lo vivifica"
(par. 13)*

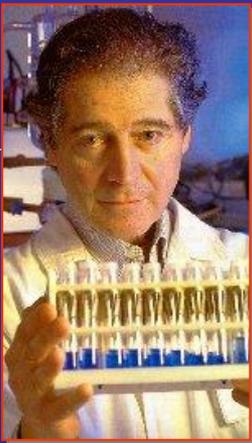


CRISTIANO FEDERICO SAMUELE HAHNEMANN
1755 - 1843
Dottore in Medicina



G. Vithoukas





Davenas, E., Benveniste, J., et al. *Nature* 333: 816-818, 1988.

816

SCIENTIFIC PAPER

NATURE VOL. 333 30 JUNE 1988

Human basophil degranulation triggered by very dilute antiserum against IgE

E. Davenas, F. Beauvais, J. Amara*, M. Benveniste, P. Fortner†, P. Ueion, J. Sainte-Laudy, J. Sarrailh

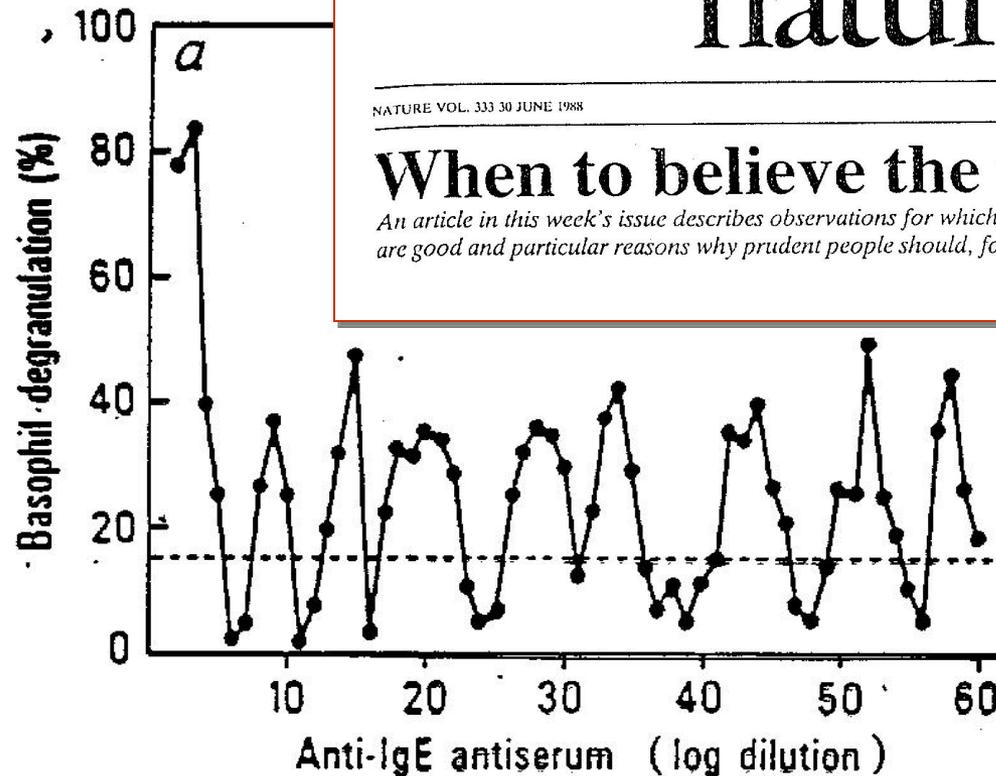
nature

NATURE VOL. 333 30 JUNE 1988

787

When to believe the unbelievable

An article in this week's issue describes observations for which there is no present physical basis. There are good and particular reasons why prudent people should, for the time being, suspend judgement.



Previsione assolutamente certa

- Lettera di XY al Preside della Facoltà di Medicina di Verona (1990):
- *“Occuparsi di omeopatia è fuori dal solco in cui si muove la scienza biomedica moderna. Ciò per il prof. Bellavite avrebbe come conseguenza l’impossibilità di vincere un concorso di Patologia Generale. Questa è una previsione assolutamente certa.”*



Il cambiamento



≈ 1989-1990 ≈



Il cambiamento



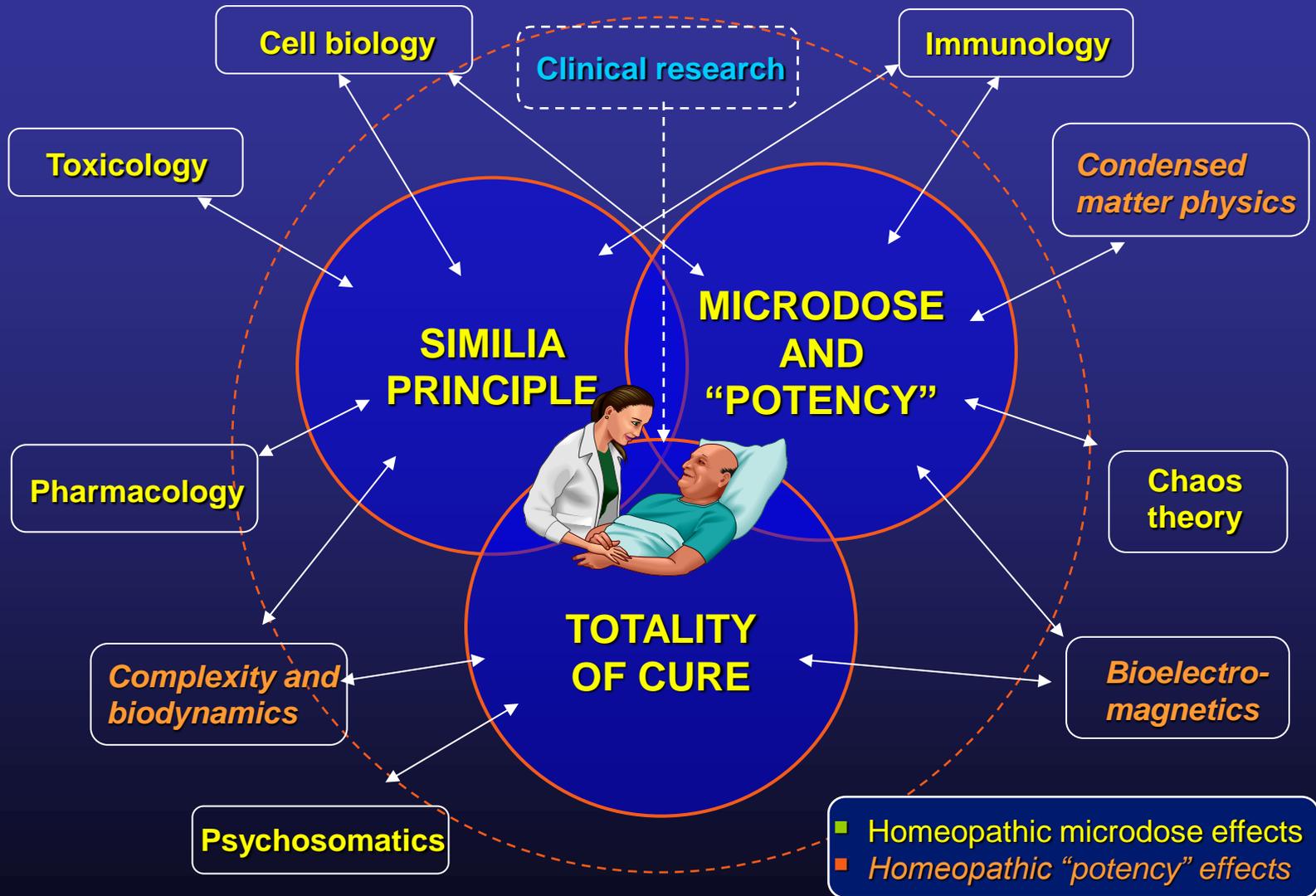
≈ 1989-1990 ≈



Il cambiamento



SCIENCE FIELDS INVOLVED IN THE INVESTIGATION OF HOMEOPATHIC PHENOMENA



Il primo lavoro *in vitro* sui medicinali omeopatici

British Homœopathic Journal
October 1993, Vol. 82, pp. 237-244

Effects of homœopathic preparations of organic acids and minerals on the oxidative metabolism of human neutrophils

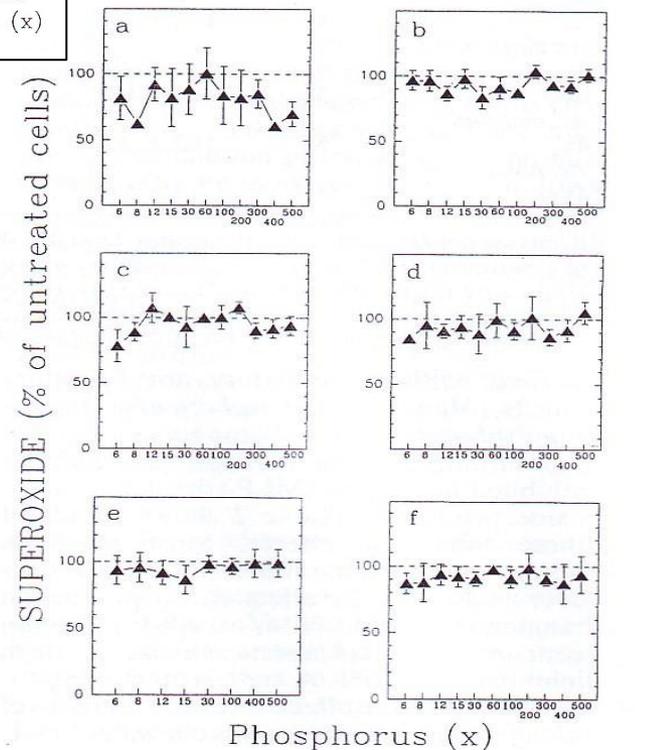
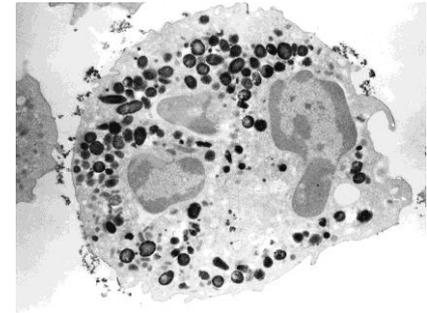
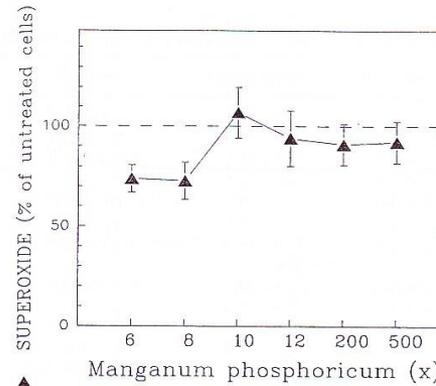
SALVATORE CHIRUMBOLO, ANDREA SIGNORINI, IVO BIANCHI,
GUISEPPE LIPPI and PAOLO BELLAVITE

Abstract

A number of different potencies of commercially available homœopathic preparations in saline solution were tested for their ability to regulate the oxidative metabolism (superoxide production) and adhesion function of human neutrophils *in vitro*. 15% to 30% inhibition of oxidative metabolism was caused by *Sulphur* 6x, *Manganum phosphoricum* 6x and 8x, and *Magnesium phosphoricum* 6x and 8x. *Phosphorus* slightly reduced superoxide production, with varying results in a series of experiments. Using *Magnesium phosphoricum* and *Phosphorus*, small inhibitory effects (8-11%) were noted even at high potencies. Among the organic acids, a group (*Acidum malicum* 4x and *Acidum fumaricum* 4x) enhanced superoxide production, while others either inhibited the response (*Acidum citricum* and *Acidum succinicum*, 3x and 4x) or had no effect (*Acidum α -ketoglutaricum* and *Acidum cis-aconitum*). Attempts to reproduce these effects using solutions prepared in the laboratory confirmed the inhibitory effects of *Manganum phosphoricum* 6x and of organic acids in the 3x, while other data indicated that critical factors in the methodology of preparation may affect the results.

KEY WORDS: Leukocyte function; Manganum phosphoricum; Magnesium phosphoricum; Phosphorus; Homotoxicology; Free radicals; Inflammation.

Volume 82, Number 4, October 1993

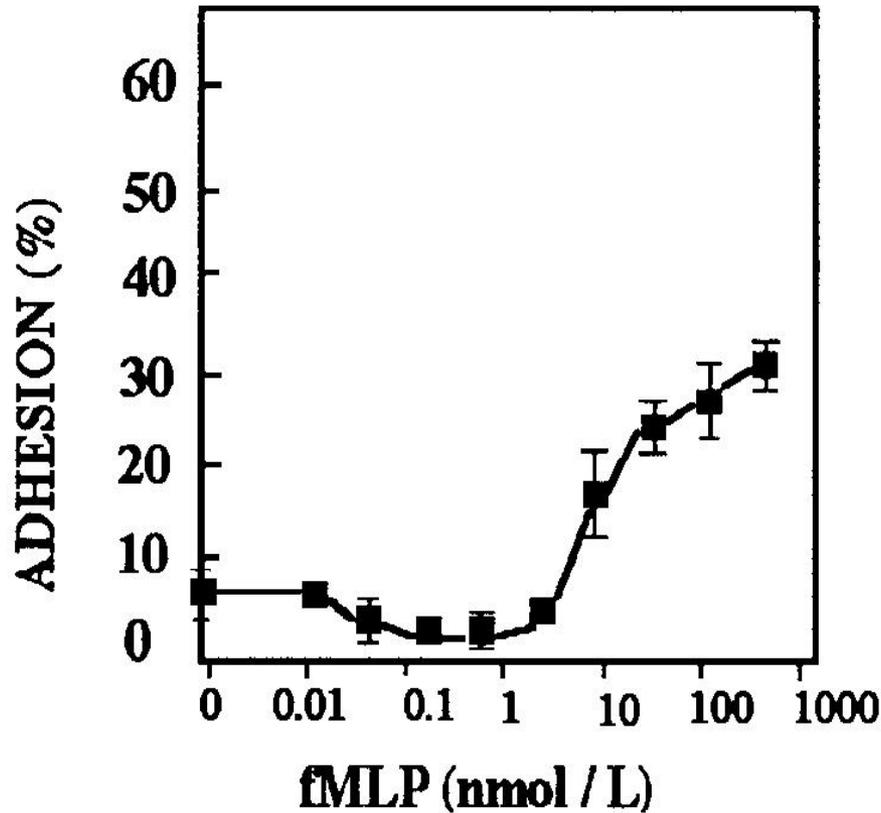




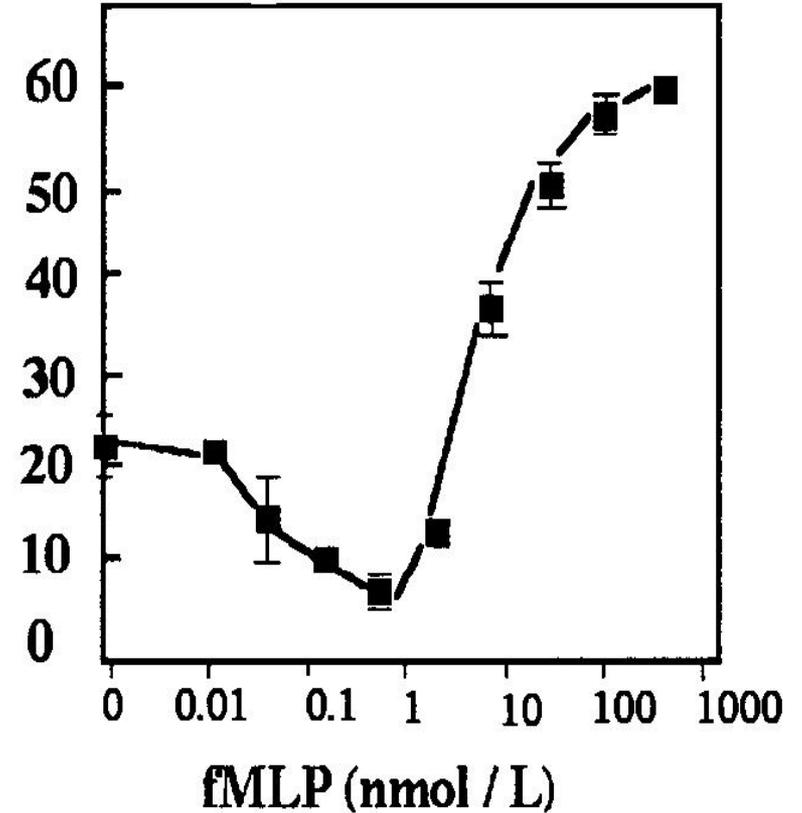
DOSE-DEPENDENCE OF ADHESION CAPABILITY INDUCED BY BACTERIAL PEPTIDES (fMLP) IN HUMAN NEUTROPHILS

Bellavite et al., 1993-1997

A. Normal cells



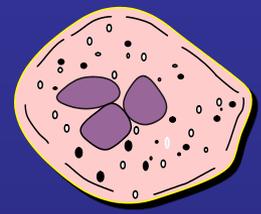
B. Endotoxin pre-treated cells, cells from inflammation site



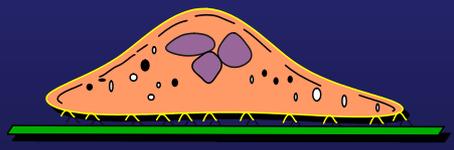


Inverse effects of different doses of fMLP on the adhesion of inflammatory human neutrophils

(Data from Bellavite et al., *Inflammation*. 18: 575, 1994)

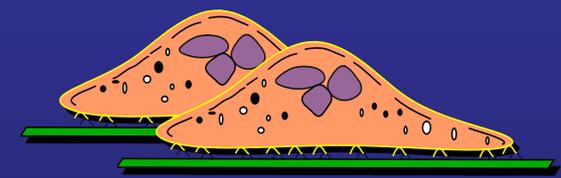


Granulocytes from skin inflammation



Spontaneous adhesion

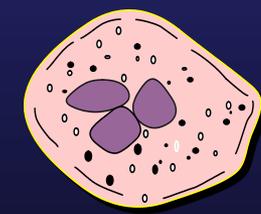
+ Bacterial fMLP
HIGH DOSE
(10^{-6} M)



Increased adhesion



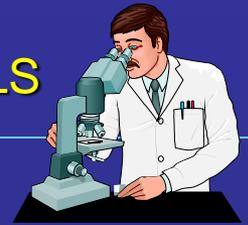
+ Bacterial fMLP
LOW DOSE
(5×10^{-9} M)



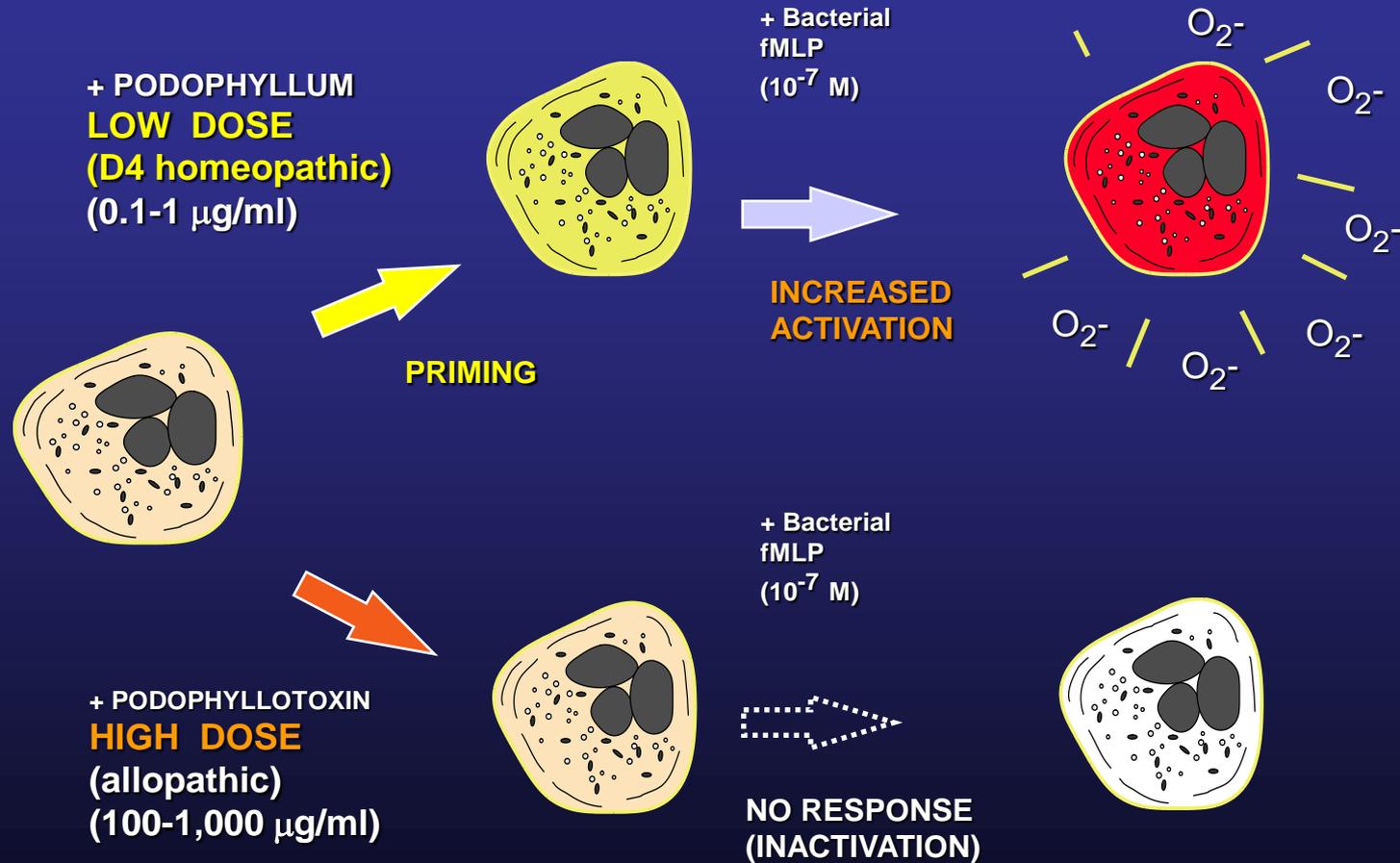
Decreased adhesion



DUAL EFFECTS OF PODOPHYLLUM ON HUMAN NEUTROPHILS



(Data from Chrumbolo and Bellavite, *Brit. Hom. J.* 86: 16-26, 1997)





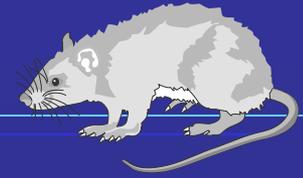
POSSIBLE MODELS EXPLAINING INVERSE EFFECTS (= SIMILIA PRINCIPLE) AT A CELLULAR LEVEL

- Detoxification enzymes (gene induction and activation)
- Heat shock proteins (stress proteins, chaperonins)
- Various receptors (different affinity and different coupling with effectors)
- Gating theory (signal transduction)



I magnifici anni '90





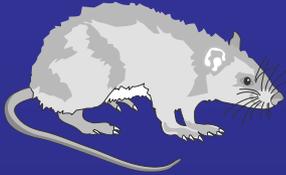
Specific and long-lasting suppression of rat adjuvant arthritis by low-dose *Mycobacterium butyricum*

Conforti A, Lussignoli S, Bertani S, Verlato G, Ortolani R, Bellavite P, Andrighetto G.

- Int. J. Immunopathol. Pharmacol. (1995) 8 (2): 113-121.
 - Eur J Pharmacol (1997) 324(2-3):241-7.
 - J. Chemother. (1998) 10: 169-172
- Int. J. Immunopathol. Pharmacol. (2001) 14: 153-160

Specific and long-lasting suppression of rat adjuvant arthritis by low-dose *Mycobacterium butyricum*

Conforti, Bellavite et al 1995-2001



SUMMARY OF MAIN RESULTS

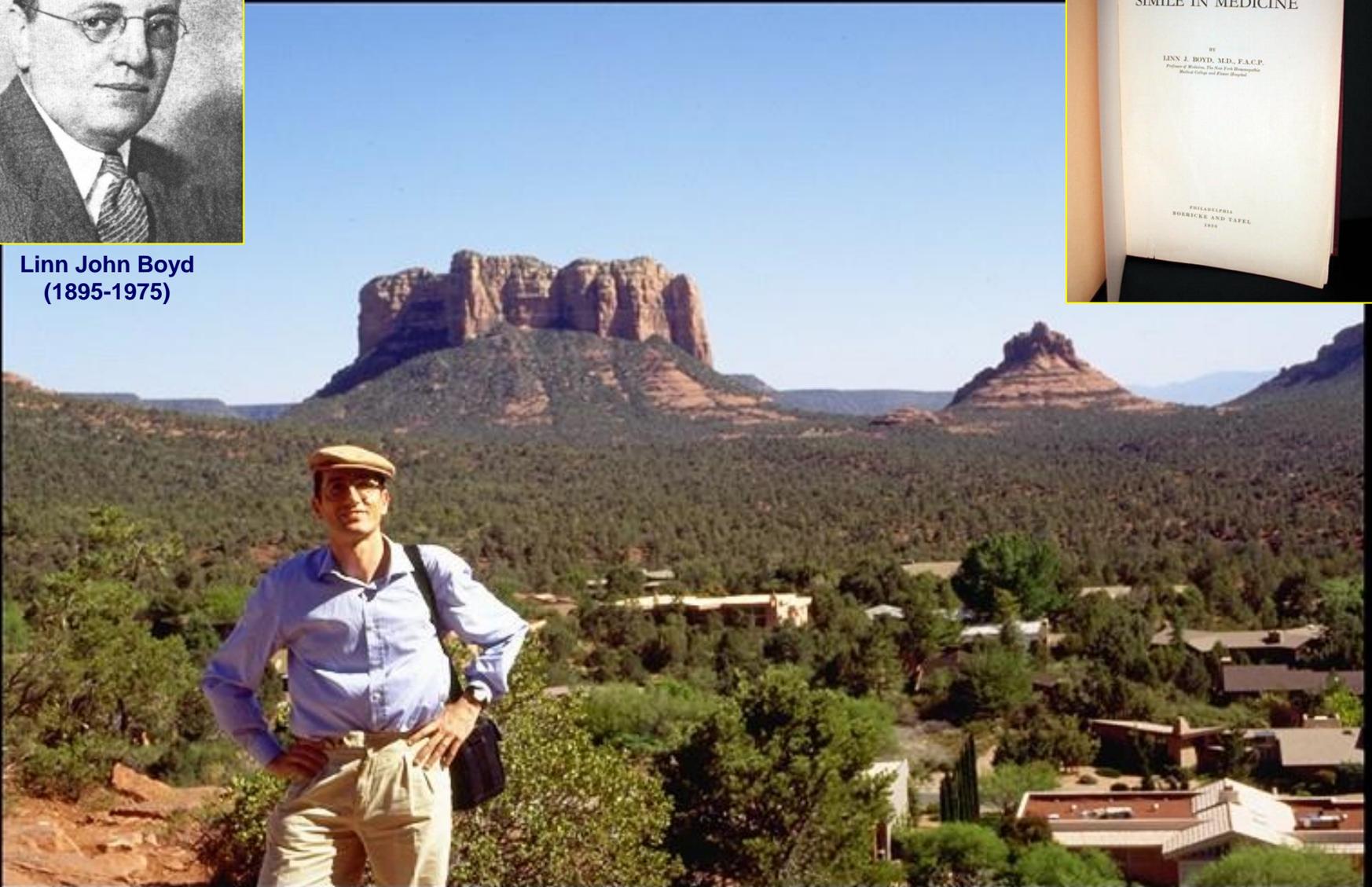
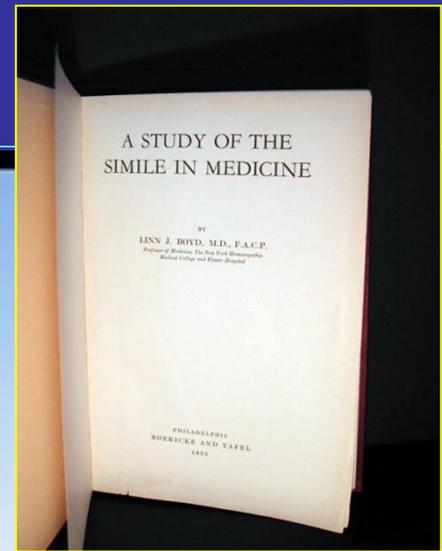
I.p. injection of low doses of Mb at 3° and 10° day after Adjuvant arthritis induction is correlated with:

- Suppression of primary and secondary lesions of disease
- Decrease of inflammatory cytokines (IL-6)
- Increase of anti-Mb antibodies
- Increase of Nitrite/nitrate serum levels
- Growth of regulatory peritoneal cells

L'incontro con Boyd



**Linn John Boyd
(1895-1975)**



≈ 1995 ≈





“SIMILI” E “CONTRARI”

L.J. Boyd, *A Study of the Simile in Medicine*, Boericke & Tafel, Philadelphia 1936, (Cap. 1)
(*Il Simile in Medicina*, Ed. Libreria Cortina, Verona 2001)

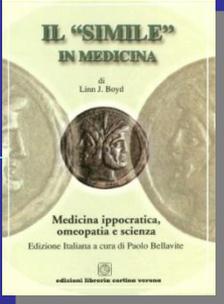
“Non si può non vedere che molti medici, consciamente o inconsciamente, procedono come se in medicina la regola dei “contrarii” fosse l’unica e corretta dottrina.

Molti altri pensano che un medico debba seguire solo “il simile”...

E’ precisamente tale posizione “o questo o quello”, assolutamente impossibile da giustificare scientificamente, che costituisce il più grosso ostacolo all’integrazione delle applicazioni del simile nella medicina.”



EFFETTI DI UNA SERIE DI SOSTANZE SULL'INTESTINO ISOLATO E PERFUSO DI RATTO (L.J. BOYD , 1936) (D=depressione, S= stimolazione)



Bassa dose Alta dose

Bassa dose Alta dose

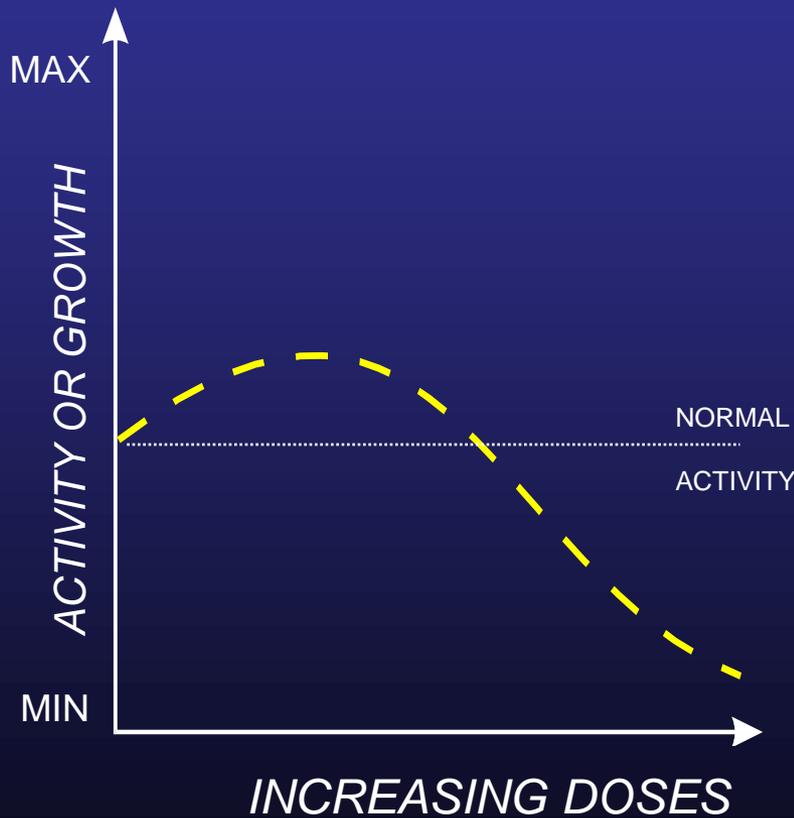
<i>Abies canadensis</i>	D	D	<i>Arum canadensis</i>	S	D
<i>Acetic acid</i>	S	D	<i>Arum drac.</i>	D	S
<i>Actaea spicata</i>	S	D	<i>Arum mac.</i>	S	D
<i>Allium sativa</i>	D	D	<i>Arum tri.</i>	S	D
<i>Allium cepa</i>	D	S	<i>Asafoetida</i>	D	D
<i>Alnus rubra</i>	D	D	<i>Asparagus off.</i>	S	S
<i>Aloes</i>	S	D	<i>Avena sat.</i>	D	D
<i>Althaea</i>	S	D	<i>Bellis per.</i>	D	D
<i>Amelopsis quin</i>	S	D	<i>Benzoic acid</i>	S	S
<i>Anacardium</i>	?	D	<i>Berberis aqui.</i>	D	D
<i>Angustura cor</i>	S	D	<i>Calendula off.</i>	D	D
<i>Apis mel</i>	S	S	<i>Calotropis</i>	S	S
<i>Apocynum can</i>	S	D	<i>Caltha pal.</i>	S	D
<i>Aristolochia mihl</i>	D	S	<i>Cantharis</i>	D	D
<i>Aristolochia serp</i>	S	D	<i>Carduus mar.</i>	D	D
<i>Arnica mont</i>	S	D	<i>Cascarilla</i>	S	D
<i>Artemisia vulg</i>	D	D	<i>Caulophyllum</i>	D	S

ecc..

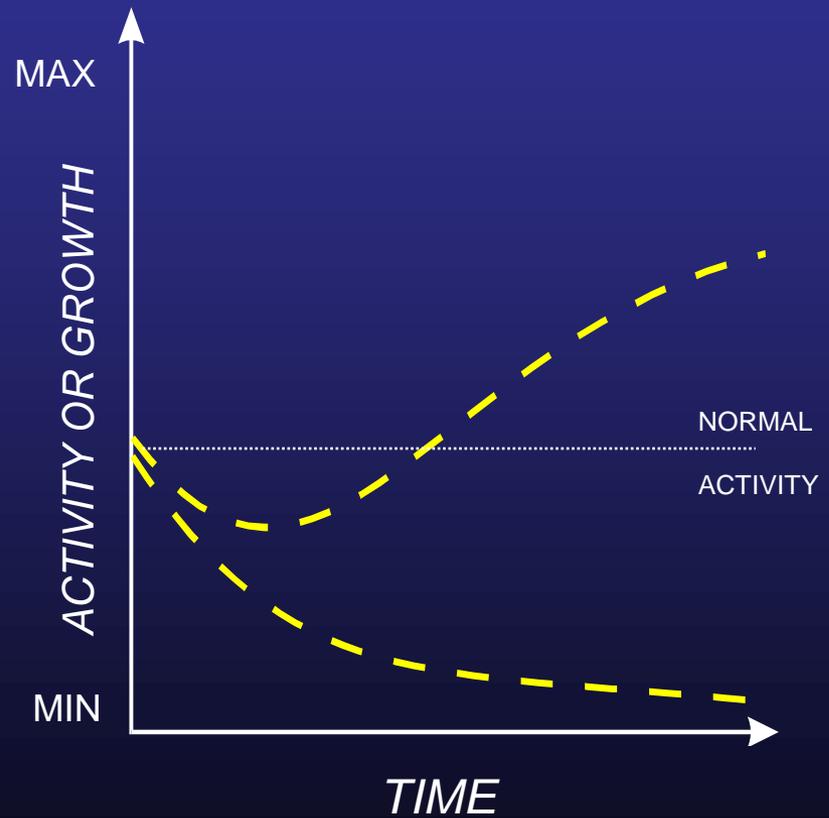


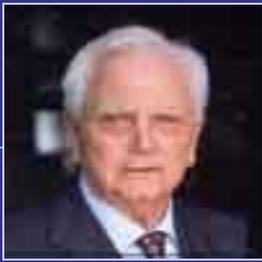
“Hormetic” effects (stimulation by low doses of toxic compounds)

A. DOSE/EFFECT PLOT



B. TIME-COURSE PLOT





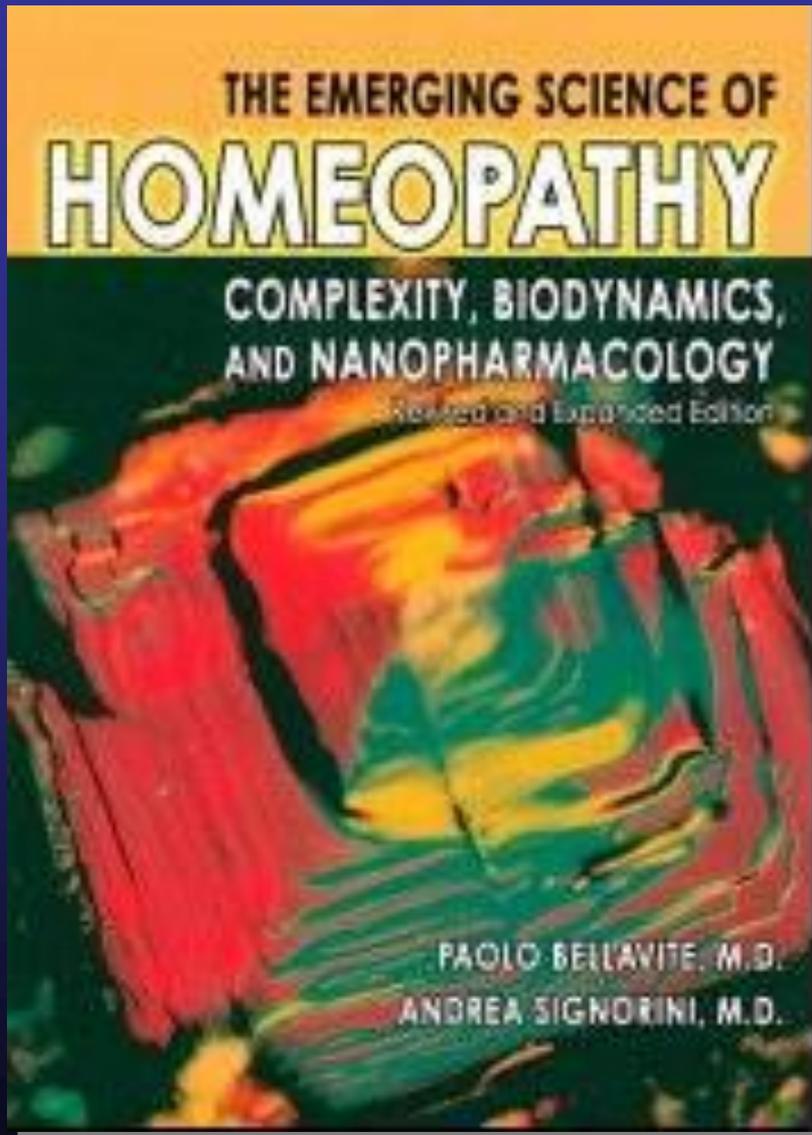
MEDICINA E COMPLESSITÀ

Nicola Dioguardi: La medicina dalla certezza alla complessità, In: Nuove frontiere della scienza (M. Pigazzini e P. Terni eds.), Editrice Lecchese, Lecco

“Il fatto è che il mondo è non lineare, irregolare, variabile, instabile, precario nei suoi comportamenti, incerto. In una parola è complesso.

La non presa di coscienza nell'area medica di questo modernissimo concetto, che ha rivoluzionato il modo di interrogare la natura, a mio avviso, è motivo della odierna crisi di identità della figura del medico nella società e della incerta collocazione della sua arte tra le scienze fisiche e naturali.”

THE EMERGING SCIENCE OF HOMEOPATHY 2nd ed.



**Complexity, biodynamics, and
nanopharmacology**

Paolo Bellavite
Andrea Signorini
Foreword by Peter Fisher

North Atlantic Books
Berkeley,
CA, U.S.A.
2002

www.homeopathic.com



Continuiamo pure la ricerca “allopatrica”

British Journal of Haematology, 2000, 110, 911–918

Defective platelet response to arachidonic acid and thromboxane A_2 in subjects with PI^{A2} polymorphism of β_3 subunit (glycoprotein IIIa)

GIUSEPPE ANDRIOLI,¹ PIETRO MINUZ,² PIETRO SOLERO,¹ SILVER PINCELLI,¹ RICCARDO ORTOLANI,³ SABRINA LUSSIGNOLI¹ AND PAOLO BELLAVITE¹ ¹Department of Morphological and Biomedical Sciences, ²Department of Biomedical and Surgical Sciences, and ³Department of Pathology, University of Verona, Verona, Italy

Received 19 March 2000; accepted for publication 1 June 2000

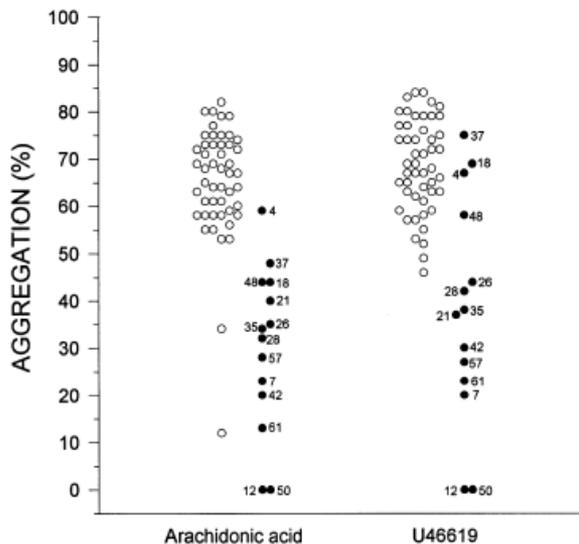


Fig 1. Distributions of PI^{A1} (○) and PI^{A2} (●) platelet aggregation to arachidonic acid and U46619. Each PI^{A2} subject is identified by their identification number, in order to compare the response to the two agonists. Subjects numbers 12 and 61 were homozygous for the PI^{A2} trait.

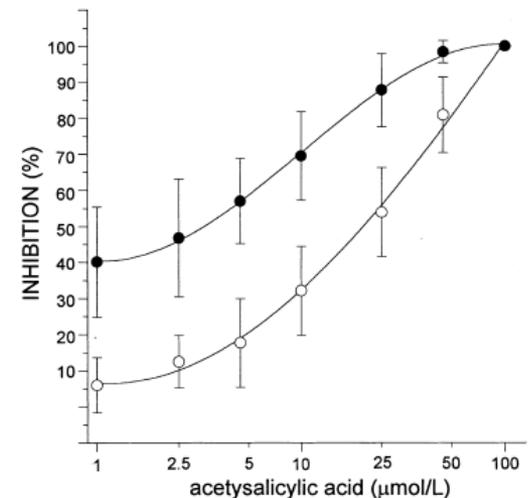
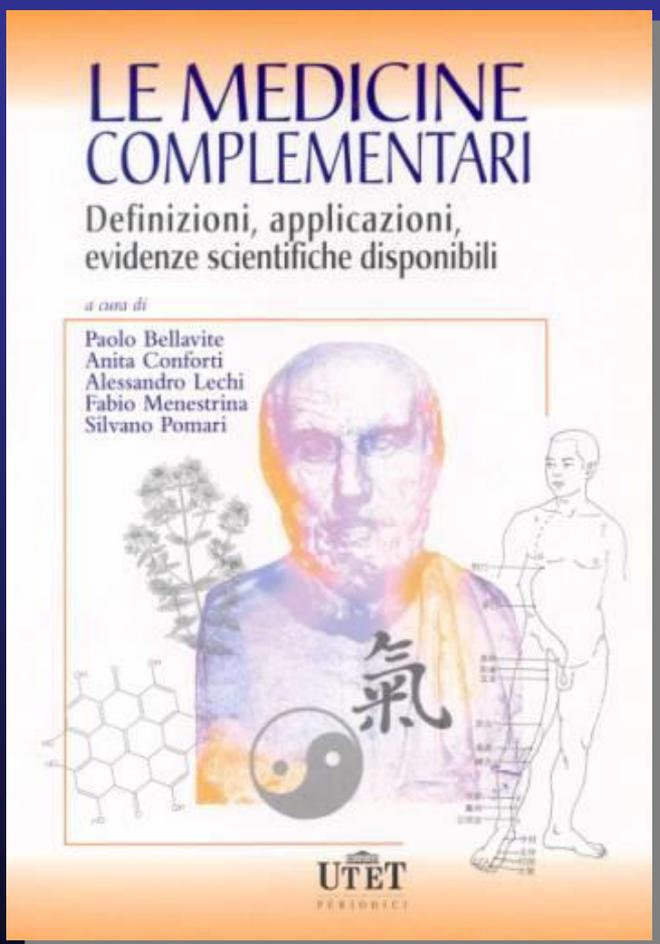


Fig 2. Effects of acetylsalicylic acid on arachidonic acid-induced platelet aggregation. After the incubation for 15 min of the platelet suspensions with scalar doses of acetylsalicylic acid, the aggregation test was performed as described in the Patients and methods section, using $15 \mu\text{mol/l}$ arachidonic acid. This series of assays included eight randomly chosen PI^{A1} subjects (○) and the eight PI^{A2} subjects (●) who showed normal or borderline responses to arachidonic acid in the absence of acetylsalicylic acid (subjects 4, 18, 21, 26, 28, 35, 37, 48 in Fig 1). Data are expressed as means \pm SD.



Università di Verona - Ordine dei Medici Chirurghi e
degli Odontoiatri della Provincia di Verona
Osservatorio per le Medicine Complementari (OMC)



LE MEDICINE COMPLEMENTARI

*Definizioni, applicazioni,
evidenze scientifiche disponibili*

P. Bellavite, A. Conforti, A.
Lechi, F. Menestrina, S. Pomari
(editori)

UTET-Periodici Scientifici, 2000

≈ 2000 ≈



Università di Verona - Ordine dei Medici Chirurghi e
degli Odontoiatri della Provincia di Verona
Osservatorio per le Medicine Complementari (OMC)



“Attualmente (maggio 2000) la banca-dati PubMed della National Library of Medicine recensisce **1.675** lavori con la keyword “**homeopathy**”.

22 ottobre 2009: 3.962 voci



Università di Verona - Ordine dei Medici Chirurghi e degli Odontoiatri della Provincia di Verona Osservatorio per le Medicine Complementari (OMC)



Terni 2002

Medicina ufficiale e MNC: integrazione fattibile

Paolo Bellavite¹ e Silvano Pomari²

Atti del Convegno Nazionale FNOMCeO

“La professione medica e le medicine non convenzionali: rischi e opportunità” - Terni 17 maggio 2002

Pagg. 43-74

¹Dipartimento di Scienze Morfologico-Biomediche, Università di Verona

²Delegato dell'Ordine dei Medici Ch. e O. della Provincia di Verona per le Medicine Complementari

DICHIARAZIONE DELLA FNOMCeO, TERNI 18 Maggio 2002

L'esercizio delle suddette medicine e pratiche non convenzionali è da ritenersi a tutti gli effetti atto medico

Richiede la costituzione di una Agenzia Nazionale

Prevede l'istituzione presso gli Ordini provinciali dei Medici chirurghi

e degli Odontoiatri di un registro suddiviso in sezioni per ciascuna delle medicine e pratiche non convenzionali sopra elencate

Chiede un urgente e indifferibile intervento legislativo del Parlamento





Università di Verona - Ordine dei Medici Chirurghi e degli Odontoiatri della Provincia di Verona

Osservatorio per le Medicine Complementari (OMC)



Dr. Giuseppe del Barone (Presidente della Federazione Nazionale degli Ordini dei Medici) :

“Desidero ringraziarLa sentitamente della Sua fattiva partecipazione nonché della apprezzatissima relazione svolta al Convegno tenutosi a Terni su La professione medica e le medicine non convenzionali, rischi ed opportunità”

(Lettera prot. 4355 28.11.2002)



Il rapporto con l'Ordine dei MCeO

Ordine dei Medici Chirurghi Odontoiatri e Università di Verona

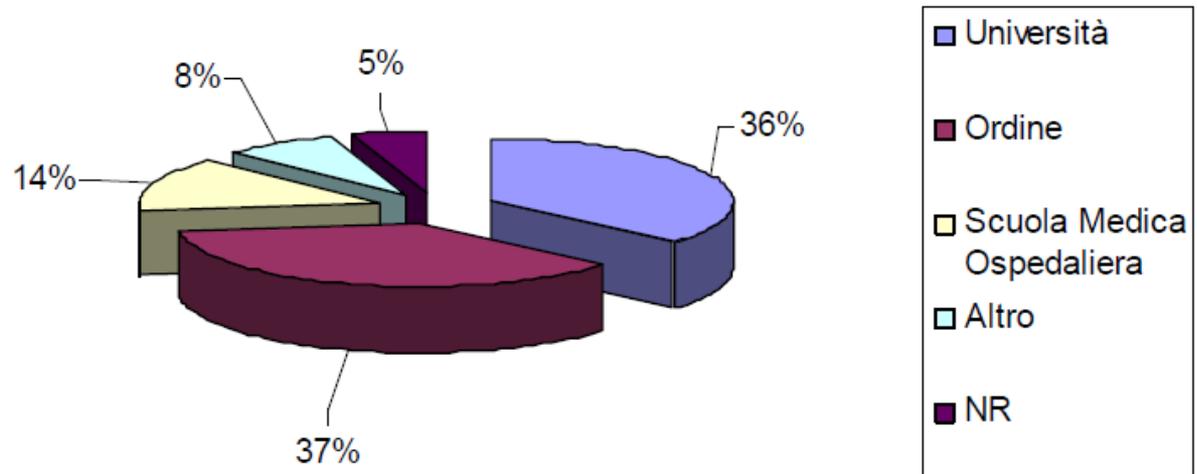
Osservatorio per le Medicine Complementari

Risultati dell'indagine sulla conoscenza e l'utilizzo dei metodi non convenzionali e complementari da parte dei medici veronesi

Paolo Bellavite¹, Anita Conforti¹, Claudia Griso¹, Silvano Pomari¹, Katia Benvenuti², Domenico

Se
Veror

Figura 2. CHI DOVREBBE FAR CONOSCERE LE MC



¹Osservatorio per le Medicine Compleme

²Medico specialista in formazione in Igie

³Professore Associato di Sociologia gene



LE RESISTENZE ACCADEMICHE

MEDICINE COMPLEMENTARI E/O ALTERNATIVE (CAM) E CORSI DI LAUREA DELL'AREA SANITARIA Alghero (2 maggio 2004)

- *“Un inserimento delle medicine complementari nel corso di laurea non appare coerente con le caratteristiche fondanti l'insegnamento universitario, che si può considerare solo quando poggia su basi scientifiche”*
- *“In sostanza, non è accettabile in alcun modo l'inserimento di insegnamenti di medicine alternative e complementari nel corso di laurea in medicina”.*

Cfr. A. Lechi, I. Vantini, Riflessioni sulle medicine alternative e complementari ed il Corso di Laurea Specialistica in Medicina e Chirurgia. *Med. Chir.* 24, 919-923, 2004



... SIC

La “sparata” di Lancet (27 agosto 2005)

The end of homoeopathy

That allopathic evaluation of that unfavourable findings. That the evidence for homoeopathy becomes, and seems its popularity.

“For too long, a politically correct laissez-faire has existed towards homeopathy, but there are now signs of enlightenment...”

For too long, a politically correct laissez-faire attitude has existed towards homoeopathy, but there are now signs of enlightenment from unlikely sources. The UK Parliamentary Select Committee on Science and Technology issued a report about complementary and alternative medicine in 2000. It recommended “any therapy that makes specific claims for being able to treat specific conditions should have evidence of being able to do this above and beyond the placebo effect”. Going one step further, the Swiss Government, after a 5-year trial, has now withdrawn insurance coverage for homoeopathy and four other complementary treatments because they did not meet efficacy and cost-effectiveness criteria.

In a Comment, Jan Vandenbroucke gives a philosophical interpretation of Shang’s study. One other philosopher he might have included is Kant, who reminds us that we see things not as they are, but as we are. This observation is also true of health-care consumers, who may see homoeopathy as a holistic alternative to a disease-focused, technology-driven medical model. It is the attitudes of patients and providers that engender alternative-therapy seeking and the national curricula. The biased reports of the Lancet’s involvement in research to perpetuate the homoeopathy versus allopathy debate. Now doctors need to be bold and honest with their patients about homoeopathy’s lack of benefit, and with themselves about the failings of modern medicine to address patients’ needs for personalised care.

“Now doctors need to be bold and honest with their patients about homeopathy's lack of benefit...”

■ *The Lancet*



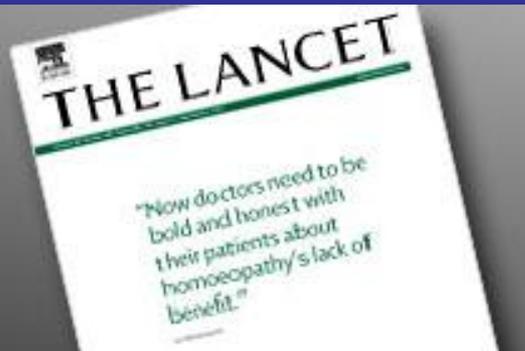
See [Comment](#) page 691

See [World Report](#) page 705

See [Articles](#) page 726



La "sparata" di Lancet (27 agosto 2005)



DECLARATION OF THE LIGA MEDICORUM HOMOEOPATHICA INTERNATIONALIS

The Liga Medicorum Homeopathica Internationalis¹ hereby publicly and officially expresses its views regarding the recent unsigned report published by the British journal *The Lancet* which states that Homeopathy lacks any curative power by printing the affirmation that "doctors should be honest with their patients and tell them the truth about Homeopathy's inability to provide therapeutic benefits." Such unfounded studies result from the meta-analysis work published in the same issue of the referenced journal.²

2) As a careful synthesis, the weakness of the published study lies in the exclusion of a great part of the literature from the statistical evaluation, the utilisation of a unilateral base for applying qualitative criteria, and the arbitrary choice of the works to be considered. Such procedure is not in accordance with the epidemiology: the application of a typical meta-analysis calculation to very few studies which are considerably different from each other, nevertheless.³ In effect, the conclusions of this analysis are based on only 8 anonymous, clinical trials. These studies are not referenced, no information is given out them and 93 % were excluded.

³ Prof. Dr. Paolo Bellavite, Professor of General Pathology at University of Verona (Italy)

GLI “ESPERTI”

(Il Corriere 11 febbraio 2006, pag. 37)

*“Se l’omeopatia non cura, come è ormai accertato, * non è medicina.”*

“Se si vuole sperimentare un farmaco servono come minimo:

- 1. Dati di laboratorio che suggeriscano un meccanismo d’azione plausibile*
- 2. Dati sull’animale che indichino che funziona*
- 3. Studi sul volontario sano che dimostrino che non fa male*

*Nessuno dei rimedi omeopatici risponde a nessuno di questi requisiti. **
*Quindi non si può nemmeno sperimentare.” **

Giuseppe P. Mannuccio Silvio
Remuzzi Mannucci Garattini

Il Corriere della Sera 11 febbraio 2006, pag. 37

* Chi l’ha detto?



IL «TUTTO»LOGO

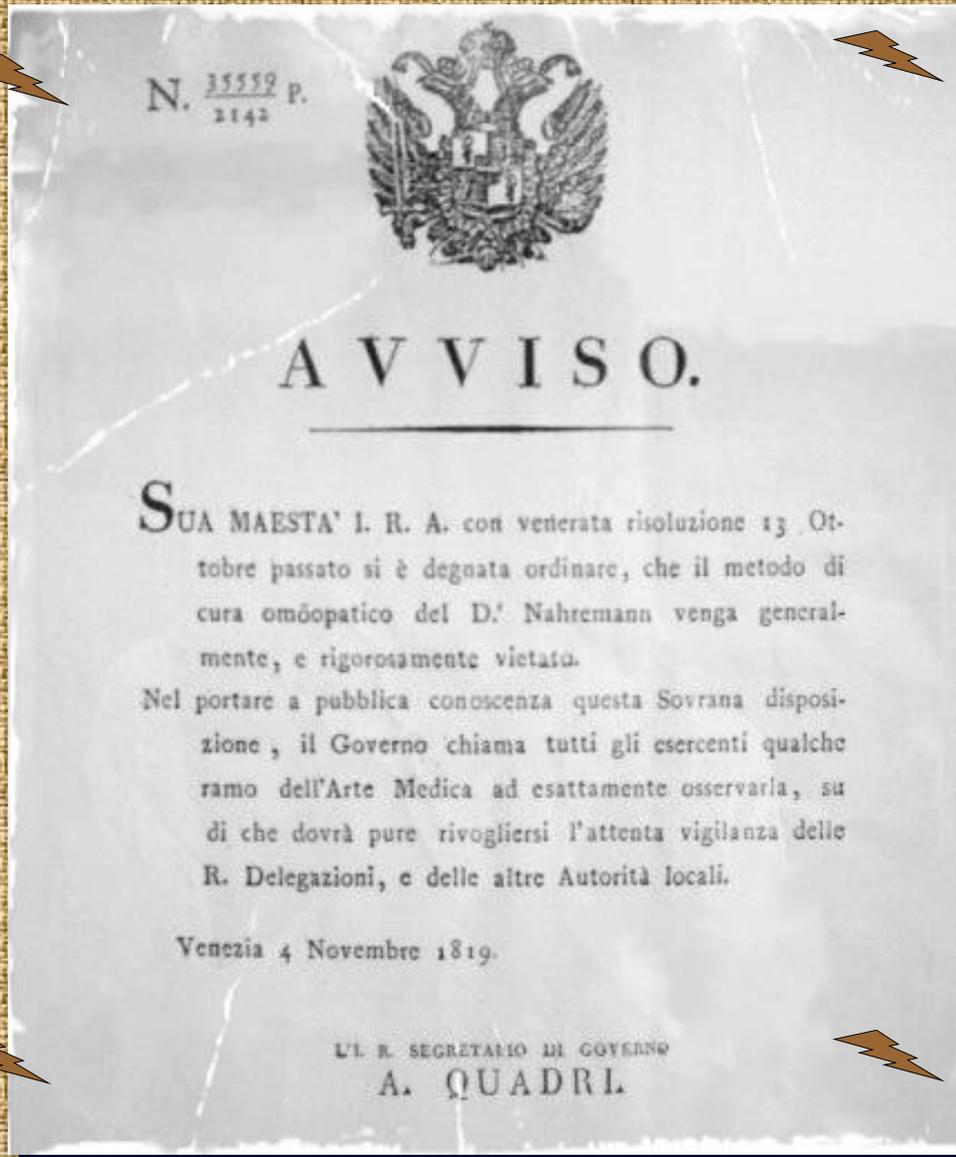


“L’omeopatia è acqua fresca”

*“**Tutti** i prodotti omeopatici che si vendono in farmacia contengono **tutti** la stessa cosa, cioè **nulla**”*

(S. Garattini, intervista a Radio24 viva voce, 27 agosto 2007)

Decreto Veneto contro l'omeopatia (1819)



≈ 1819 ≈



Previsione assolutamente riuscita

- Prof. Luigi Frati (commissario al concorso di ordinario di Patologia Generale) (2000):

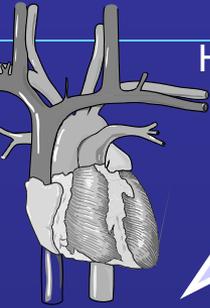
“Il candidato si allontana dai tradizionali canoni epistemologici senza proporre altri in modo convincente.”

(Università di Roma-La Sapienza, 27.11.2000)

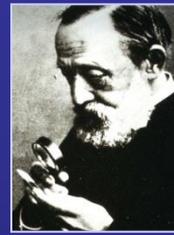
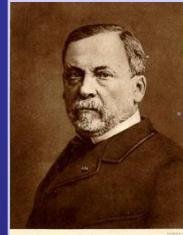
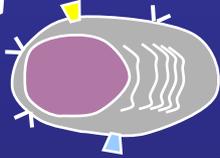
...SIC



EVOLUZIONE STORICA ED EPISTEMICA DELLA MEDICINA

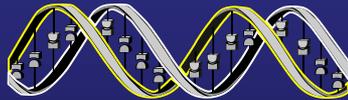


Harvey, Claude Bernard



Pasteur, Virchow

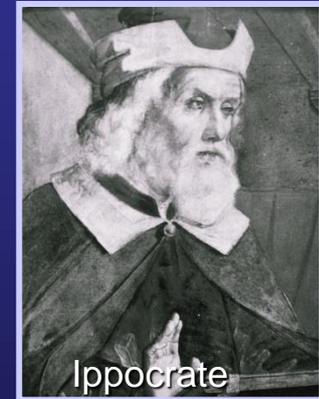
1800-1900



1900-2000



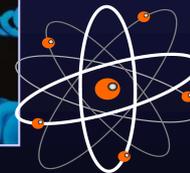
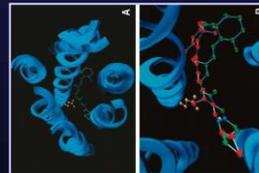
Monod, Dulbecco



Ippocrate

Medicina integrata

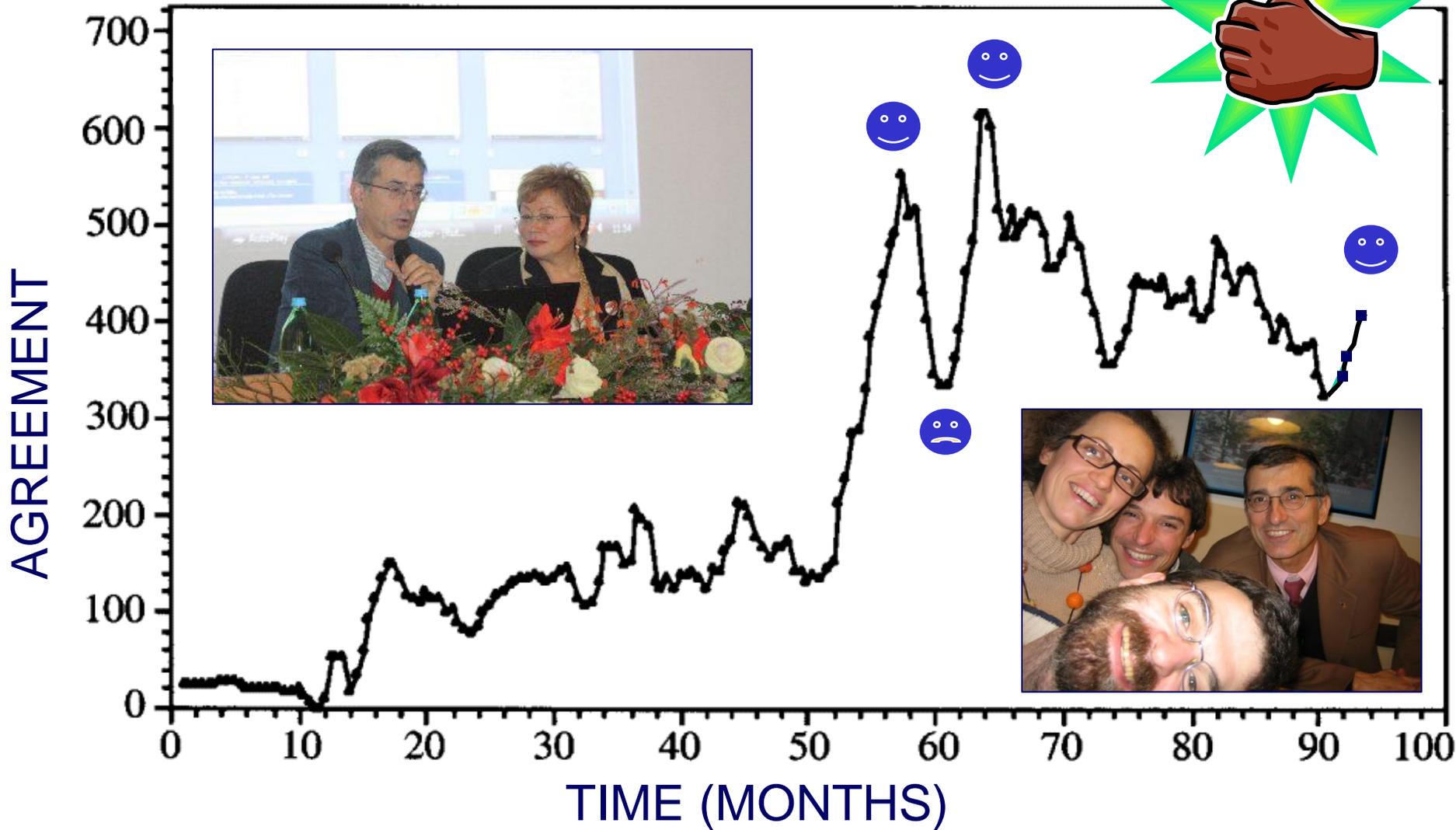
- Psicosomatica
- Neuroimmunologia
- Bioetica
- Complessità, caos
- Medicine sistemiche (orientali, omeopatia)



≈ 1995-2009 ≈



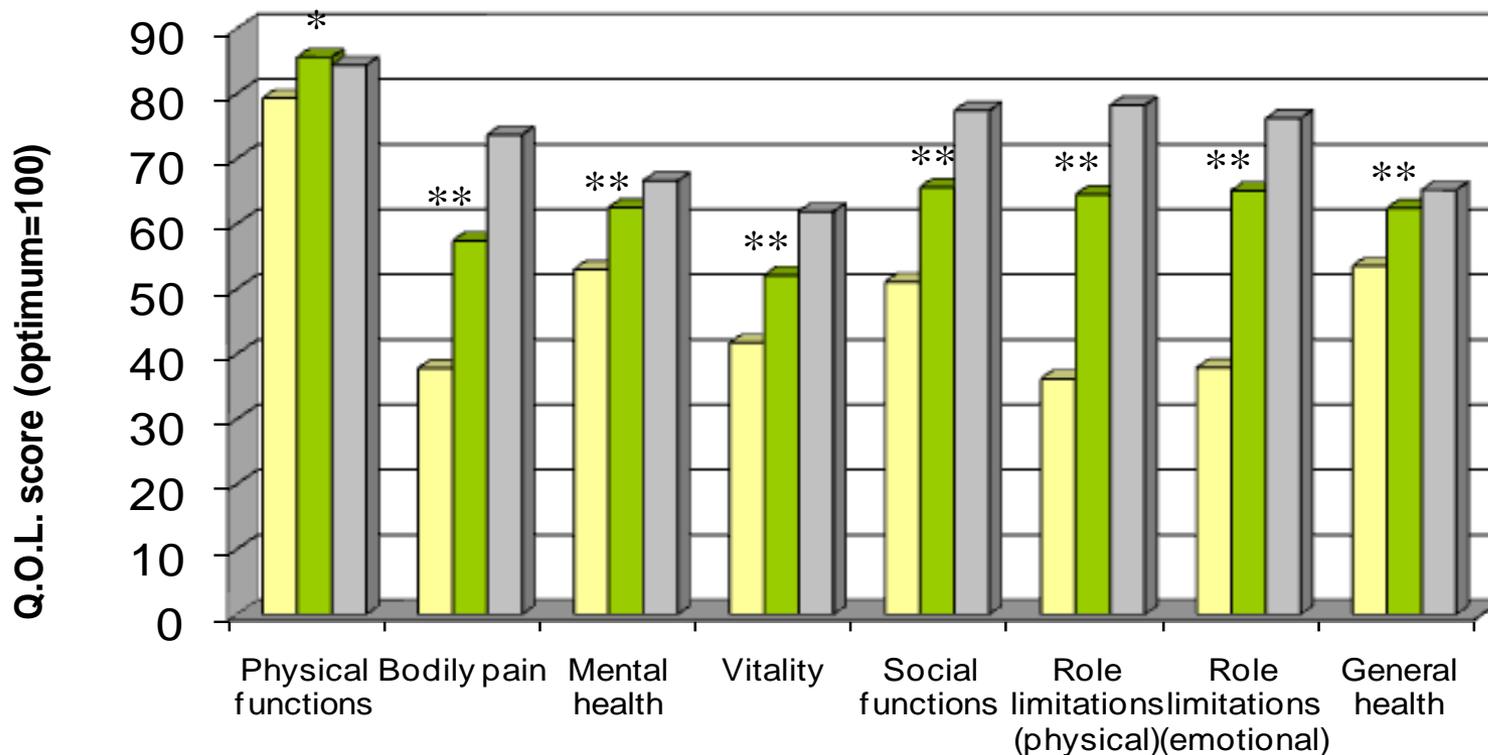
La Scuola di Omeopatia





**Quality of life scores in patients (n=44) affected by chronic cephalalgia under homeopathic treatment (analysis includes 5 dropped out cases).
Muscarì Tomaioli et al Br.Hom.J. 90:189-97,2001.**

□ Before therapy ■ After 6 months therapy ▒ Normal population



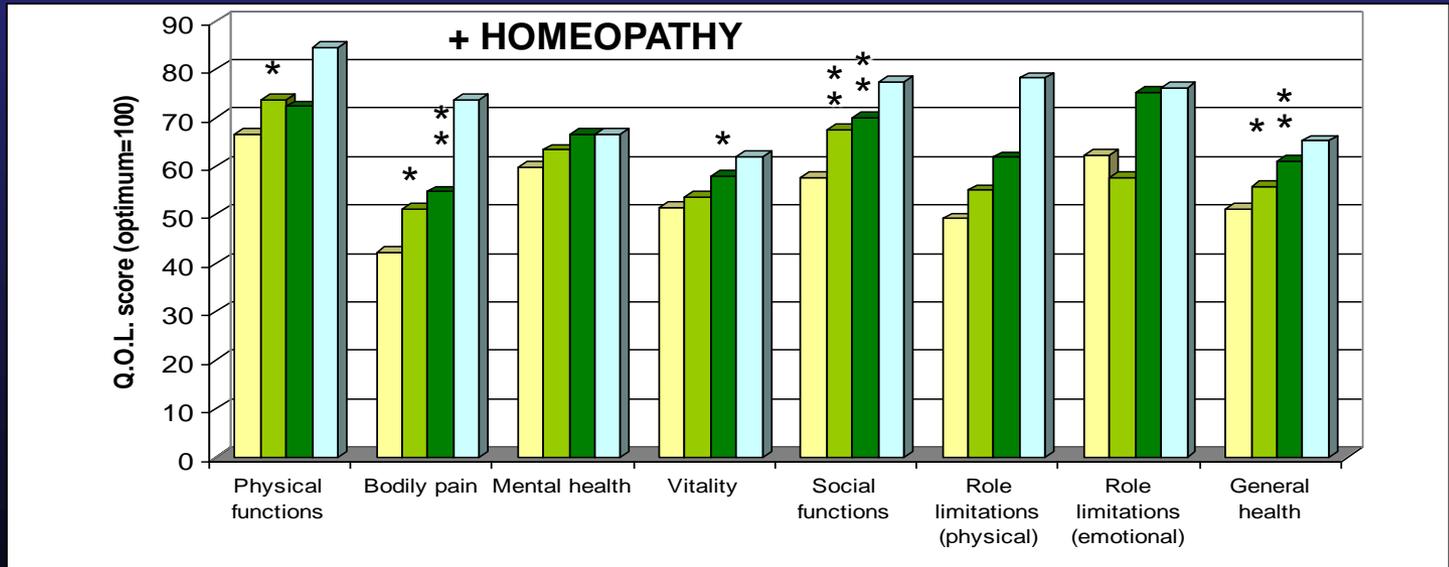
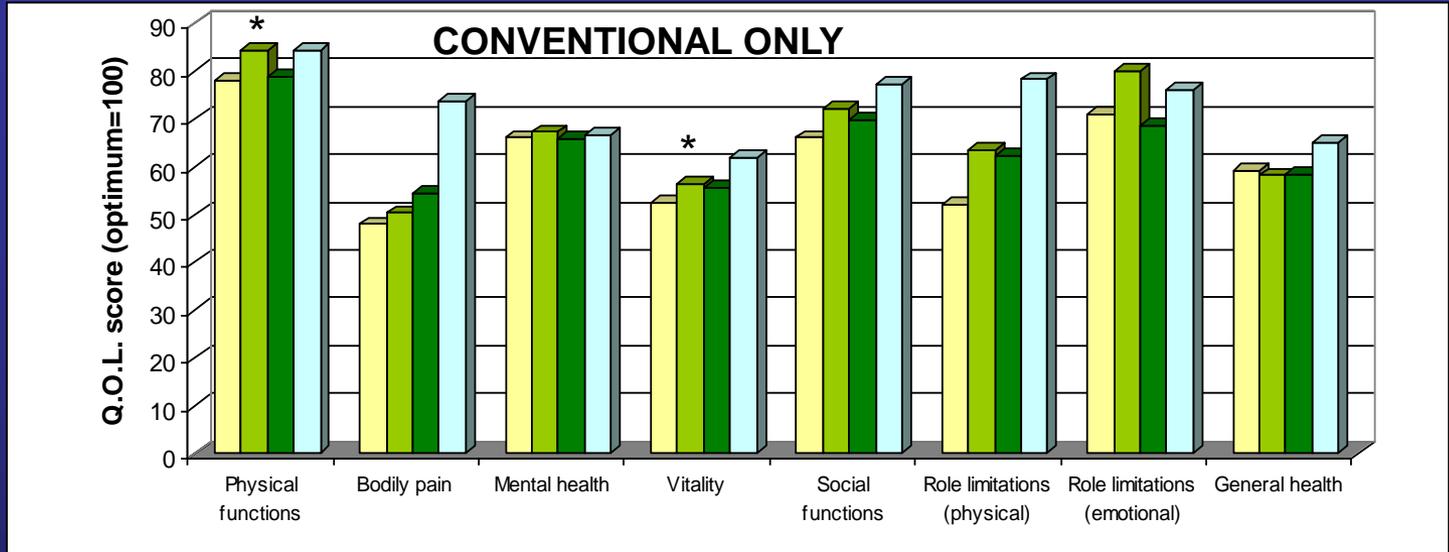
p(before/after therapy): * <0.05 ** <0.01



Studio Osservazionale Artroreumatici 2001-2003

Medicina Naturale (Milano) 13 (6): 44-50, 2003

Pomposelli, R.
 Codecà, G.
 Bergonzi, R.
 Andreoni, C.
 Salvi, G.P.
 Costini, G.
 Piasere, V.
 Bellavite, P.



Initial v.
 6 months
 12 months
 Italian population

* P<0.05

** P<0.01



Polineuropatia diabetica (Ricerca "Belladonna") Pubblicata su Homeopathy, Gennaio 2009



Homeopathy (2009) 98, 17-25
© 2008 The Faculty of Homeopathy
doi:10.1016/j.homp.2008.11.006, available online at <http://www.sciencedirect.com>

ORIGINAL PAPER

Observational study of homeopathic and conventional therapies in patients with diabetic polyneuropathy

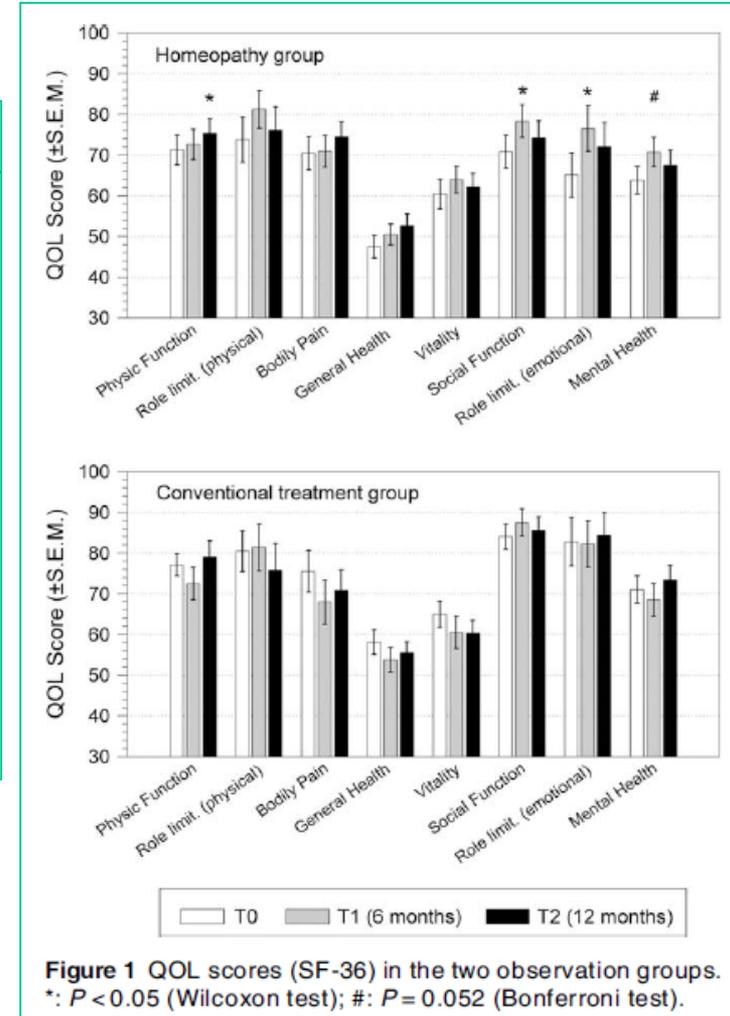
Raffaella Pomposelli¹, Valeria Piasere², Cristina Andreoni¹, Gavina Costini¹, Elena Tonini¹, Antonietta Spalluzzi³, Daniela Rossi³, Chiara Quarenghi³, Maria Elisabetta Zanolin⁴ and Paolo Bellavite^{2,*}

¹"Belladonna" Medical Association, Milan, Italy

²Department of Morphological-Biomedical Sciences, University of Verona, Italy

³Quarenghi Clinic, S. Pellegrino, Bergamo, Italy

⁴Department of Medicine and Public Health (Biomedical Statistics Section), University of Verona, Italy

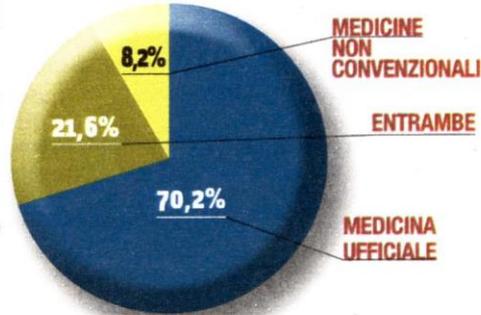


I TEMPI CAMBIANO...

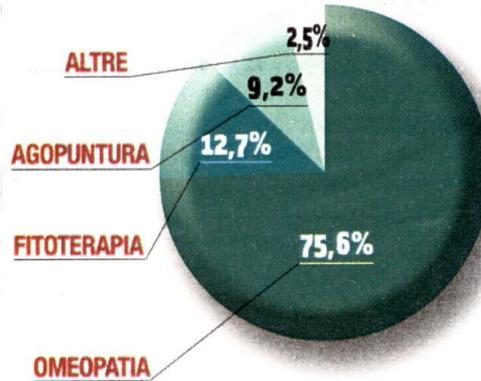
Il sondaggio Format-Salute 2-5 settembre 2005

Tre su dieci usano le "altre" cure

Ecco i risultati di un sondaggio realizzato da Format per "Salute". È stato chiesto ai 1001 intervistati come si sono curati negli ultimi 3 anni: il 70,2% del campione con la medicina ufficiale, l'8,2% solo con medicine non-convenzionali, mentre il 21,6% ha fatto ricorso ad entrambe. Tra gli "esclusivisti" più le donne e le persone tra i 35 ed i 44 anni. Ricorrono a entrambe le medicine le persone tra i 18 e i 34 anni. Pertanto l'uso esclusivo appare una tendenza del passato e si sta affermando un nuovo modello di comportamento nei confronti dei farmaci.



Preferiti i rimedi di Hahnemann



TRA le terapie non-convenzionali usate negli ultimi tre anni vince l'omeopatia con il 75,6% (sono il 21,4% del totale del campione di italiani), seguita da fitoterapia con il 12,7% (il 3,6% del campione) e agopuntura con il 9,2% (il 2,6%); il 2,5% ha fatto ricorso ad "altre" terapie. La cura ideata dal tedesco Hahnemann nel '700 è più utilizzata dai residenti nel Nord e nel Centro Italia. Nel Sud il ricorso all'omeopatia è inferiore alla media nazionale. L'agopuntura prevale tra gli uomini.



Contro le allergie ora puoi scegliere. Anche l'omeopatia, se vuoi.

Chiama l' 800 556060

Medicine Complementari

Servizio Sanitario della Toscana. Cresce la salute.



INTEGRAZIONE: UTOPIA O REALTÀ?



Segnali preoccupanti

- Opposizioni pregiudiziali nell'accademia
- Opposizione di circoli di farmacologi ben piazzati nei massmedia
- Esclusione dai LEA
- Assenza della politica (eccetto in qualche Regione)



Segnali confortanti

- Sostegno di OMS e interesse dell'ISS
- Crescita della ricerca di base e applicata
- Inizio di alcuni corsi elettivi e master in università
- Interesse di alcuni Ordini dei Medici
- Apertura di riviste scientifiche e delle Banche-dati ufficiali

Le prove sperimentali del “Simile”



- Bellavite P. et al., (1997) *Medical Hypotheses* 49: 203-212.
Bellavite P. and Signorini A. (2002) *The Emerging Science of Homeopathy*. North Atlantic, Berkeley
Bellavite P. (2005) *Il Medico Omeopata* IX (27): 41-56
Bellavite et al.(2007) *eCAM Journal* doi: 10.1093/ecam/nel117

- **EFFETTI INVERSI SECONDO LA DOSE** (“ormesi”, reg. di Arndt-Schultz): sostanze o stimoli di varia natura possono causare effetti opposti al variare della dose
- **RUOLO DEL VALORE INIZIALE** (reg. di Wilder): l’effetto di un certo trattamento dipende dallo stato fisiologico del sistema ricevente, se a riposo o già stressato, se sano o malato, se in presenza di altri fattori concomitanti
- **EFFETTI PARADOSSALI DEI FARMACI** (“paradoxical pharmacology”, “rebound”): spesso i farmaci provocano effetto opposti nei trattamenti acuti e cronici
- **VIA DI INTRODUZIONE**: effetti diversi e persino opposti secondo la via di somministrazione, es. orale vs. parenterale (modelli immunologici)
- **METODO DI PREPARAZIONE**: l’effetto dipende dalla preparazione che determina la natura fisico-chimica del segnale, la sua biodisponibilità e l’interazione col bersaglio





CAROLINA JESSAMINE
Gelsemium sempervirens (L.) Ait.
Loranthaceae Family

eCAM Advance Access published September 14, 2009

eCAM 2009; Page 1 of 10
doi:10.1093/ecam/nep139

Original Article

Homeopathic Doses of *Gelsemium sempervirens* Improve the Behavior of Mice in Response to Novel Environments

Paolo Bellavite¹, Paolo Magnani¹, Elisabetta Zanolin² and Anita Conforti³

¹Department of Morphological Biomedical Sciences (Chemistry and Microscopy Section), ²Department of Medicine and Public Health (Biomedical Statistics Section) and ³Department of Medicine and Public Health (Medical Pharmacology Section), University of Verona, Verona, Italy

Homeopathy (2009) ■, 1-20
© 2009 The Faculty of Homeopathy

doi:10.1016/j.homp.2009.09.005, available online at <http://www.sciencedirect.com>

ORIGINAL PAPER

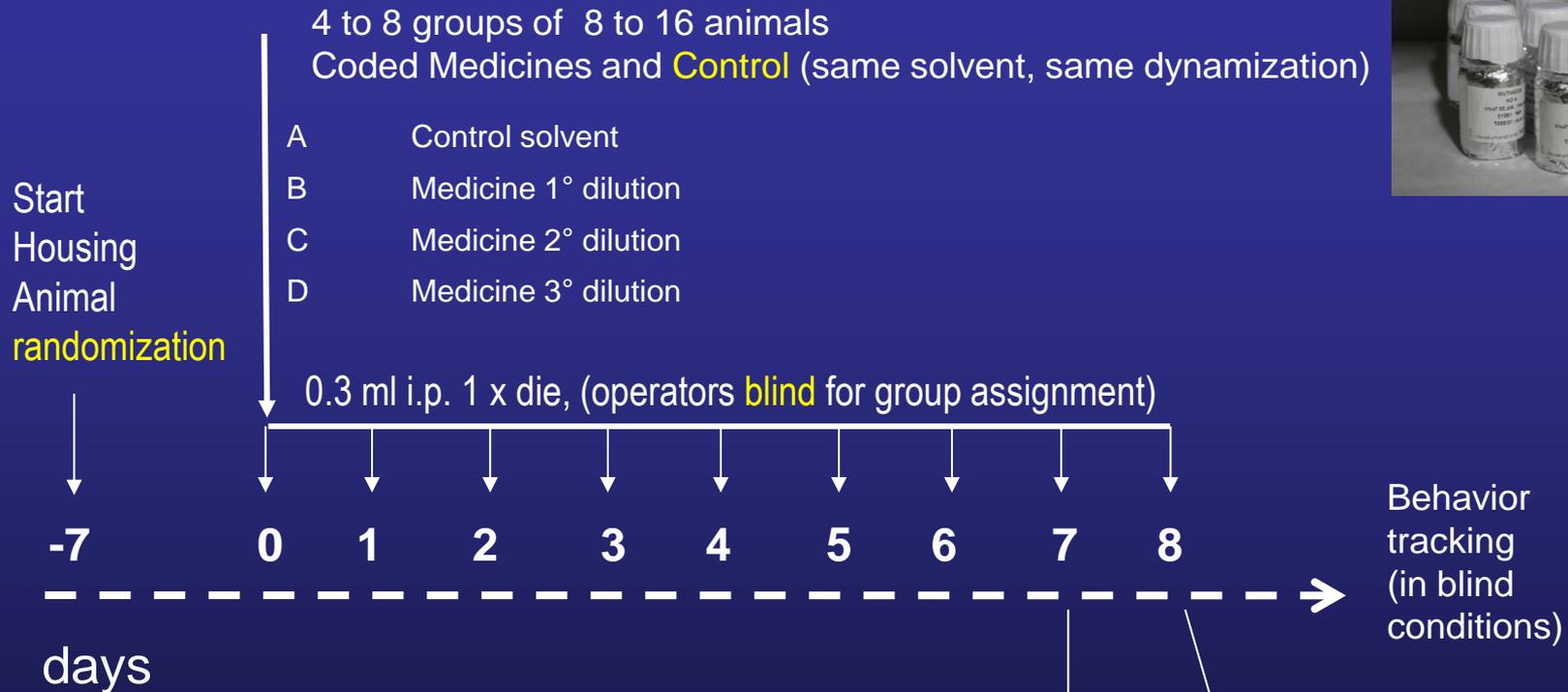
Assays of homeopathic remedies in rodent behavioural and psychopathological models

Paolo Bellavite^{1,*}, Paolo Magnani¹, Marta Marzotto¹ and Anita Conforti²

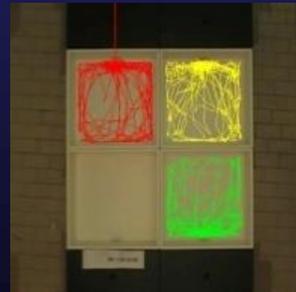
¹*Department of Morphological Biomedical Sciences, University of Verona, Italy*

²*Department of Medicine and Public Health, University of Verona, Italy*

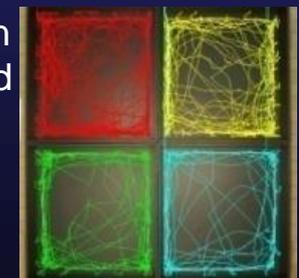
Scheme of the standard experiment



Experiments approved by ethical committee
No pain, no artificial stress



Light-Dark Test



Open-Field Test



Light-Dark test setting and Video-recording

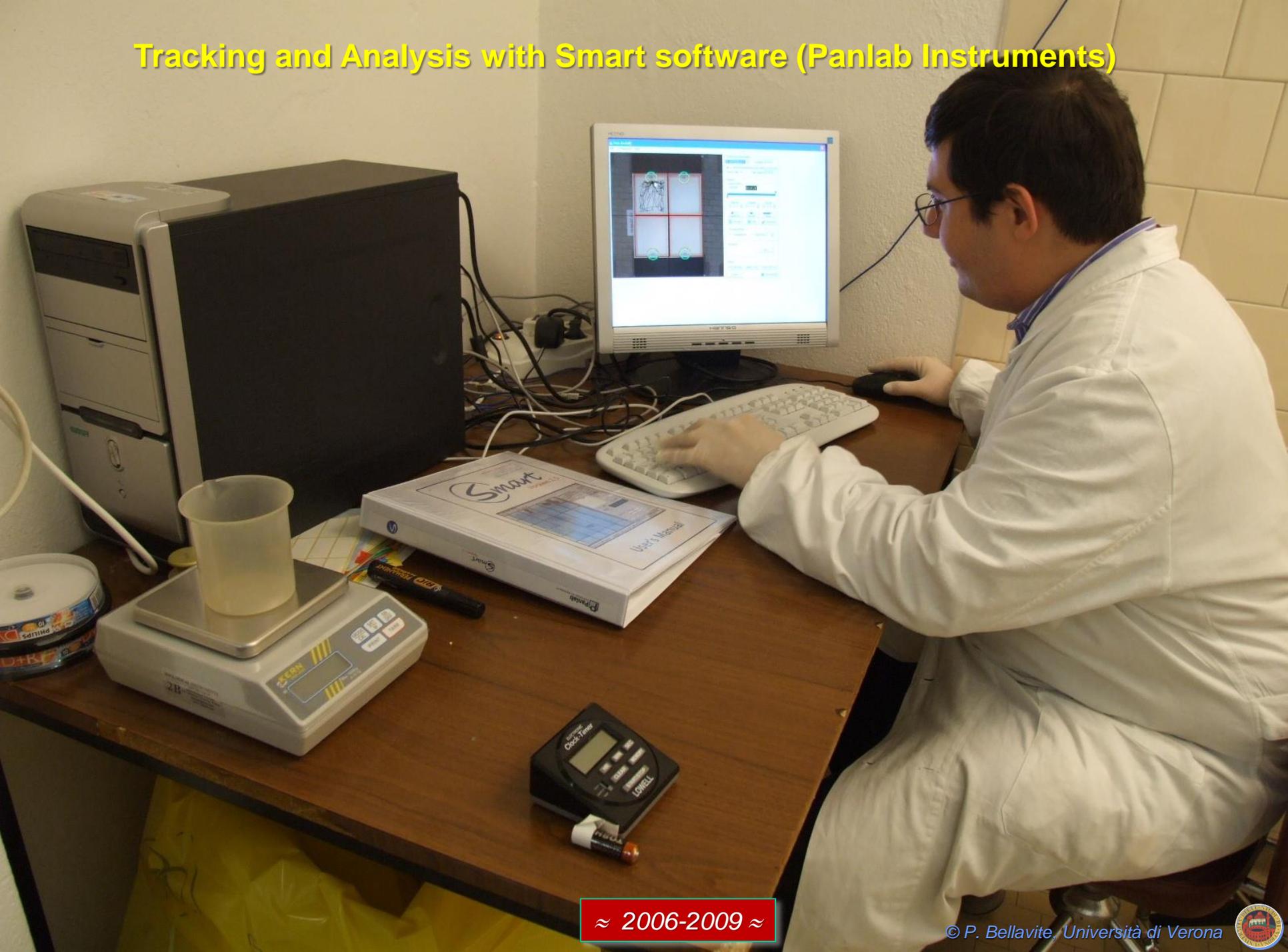


Main parameters:

- % Time in light area
- N. of transitions



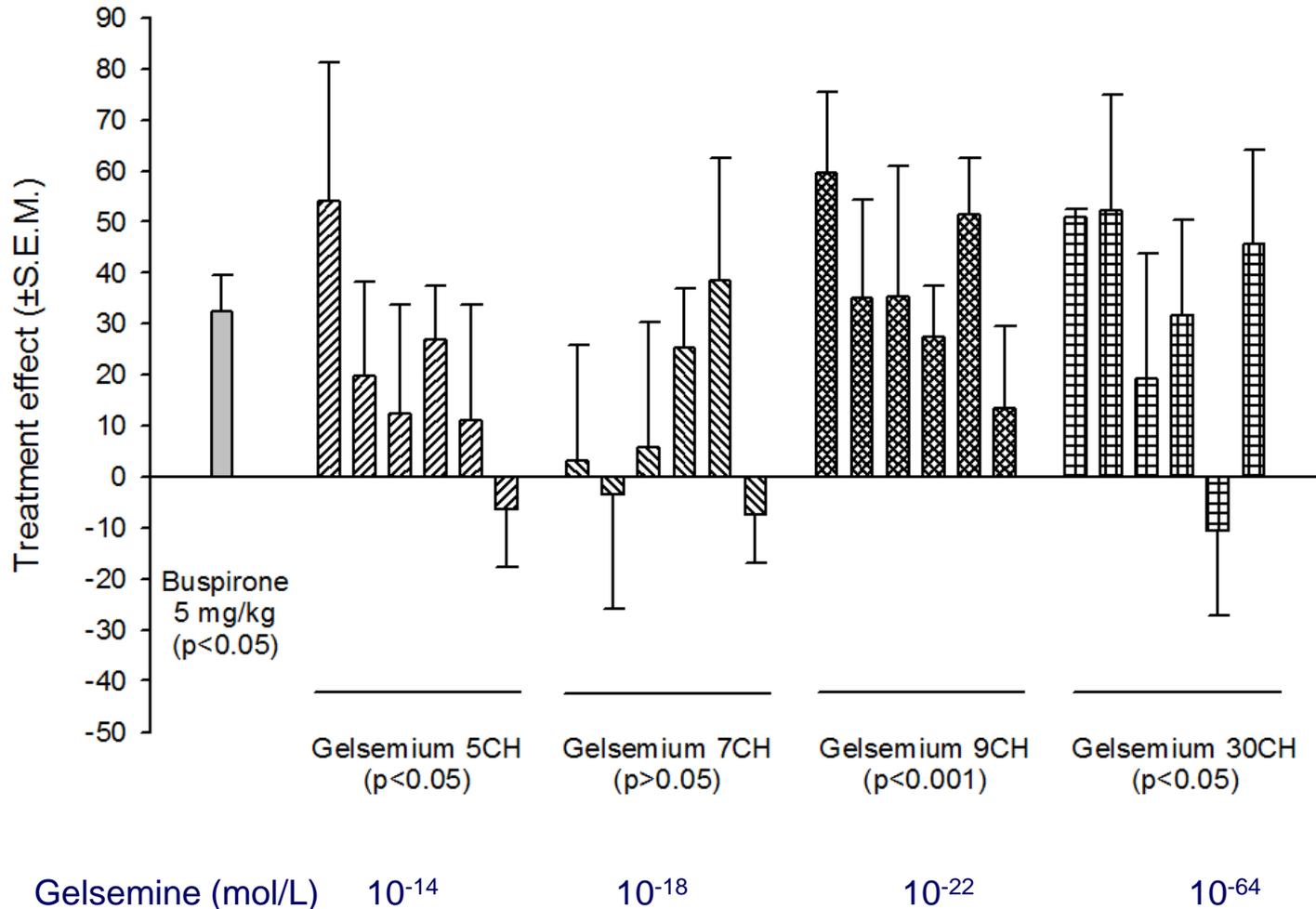
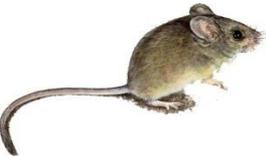
Tracking and Analysis with Smart software (Panlab Instruments)



≈ 2006-2009 ≈



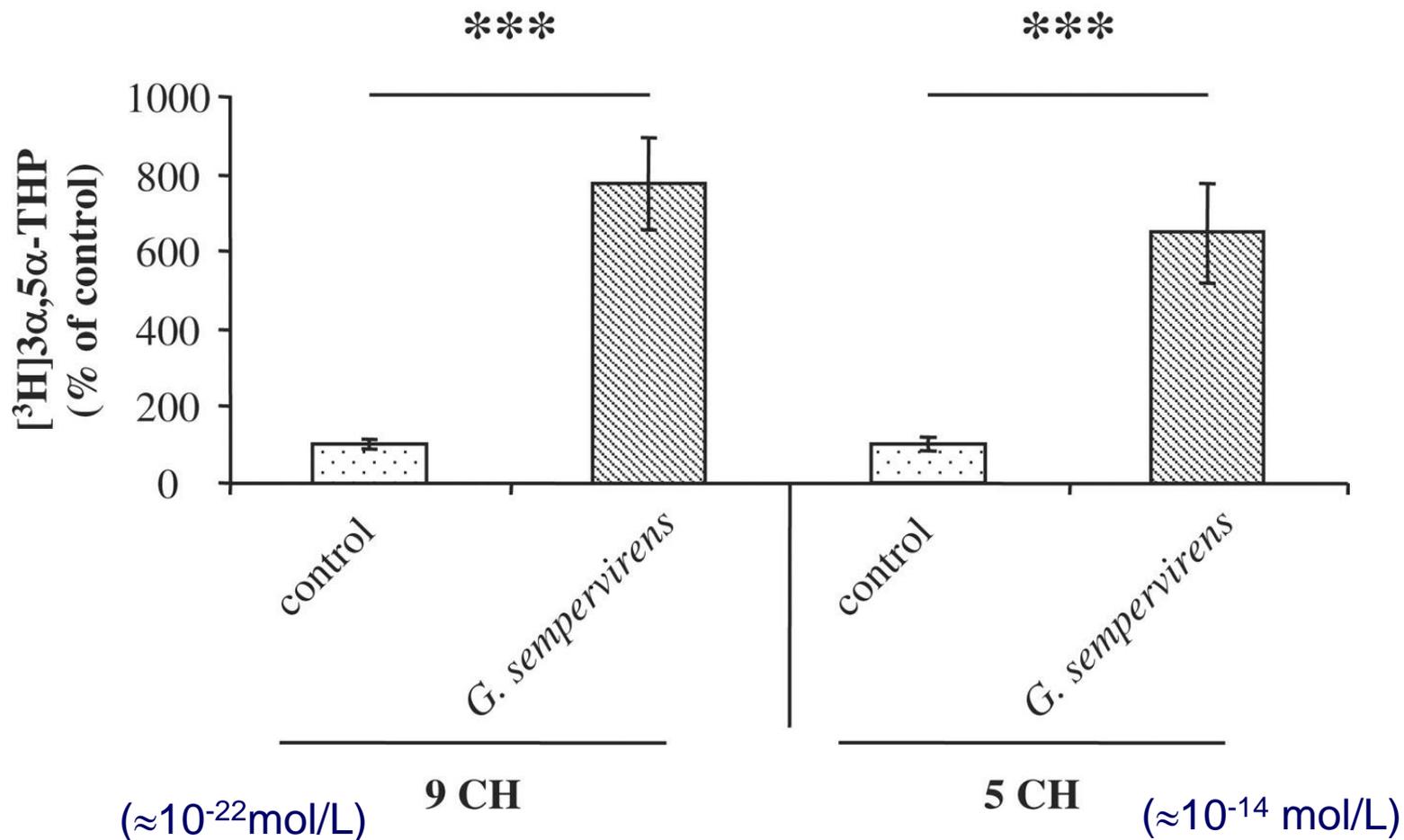
Effects of *Gelsemium sempervirens* in Light-dark test : Time spent in light



HERBARIUM ARBOREUM
A. & C. SERRAVALLO, VERONA
GELSEMIUM

Comparative Analysis of Gelsemine and *Gelsemium sempervirens* Activity on Neurosteroid Allopregnanolone Formation in the Spinal Cord and Limbic System

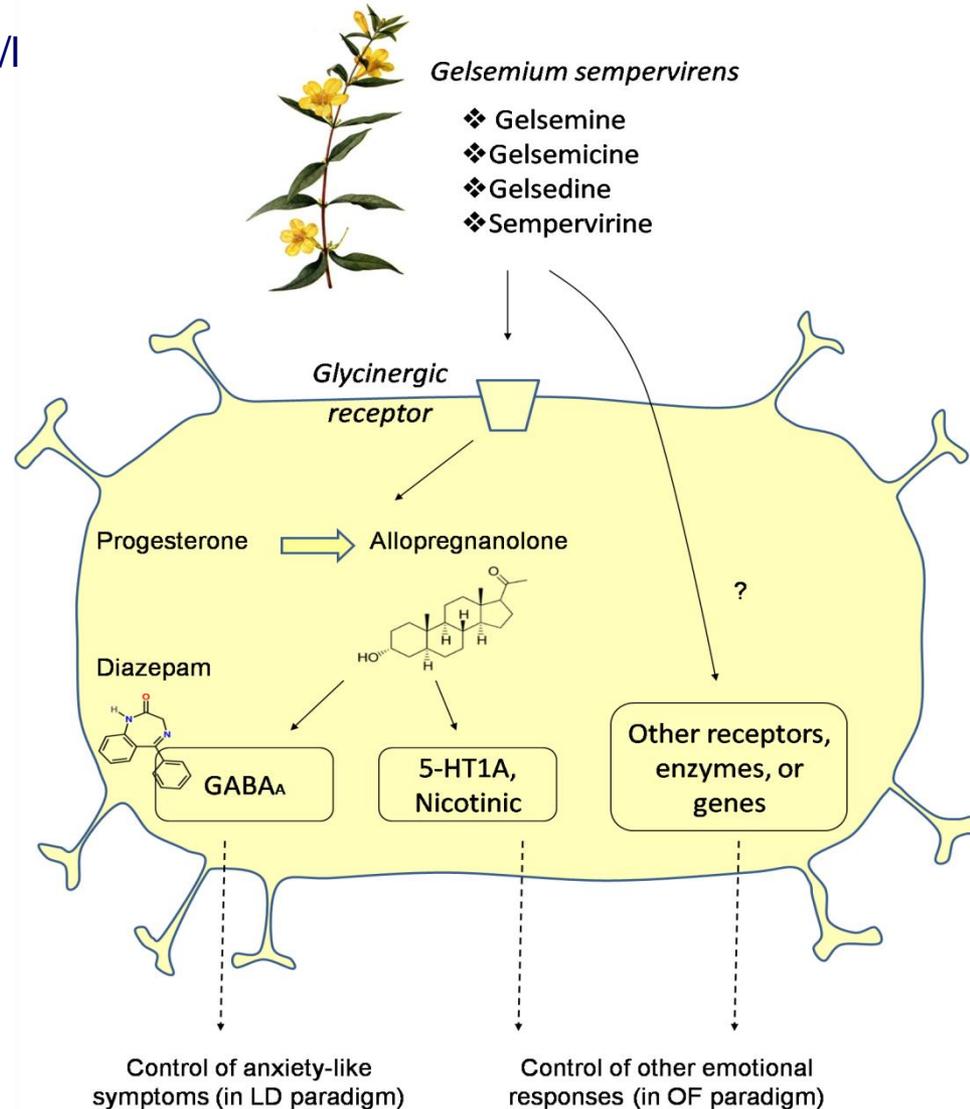
Adapted from: Christine Venard et al., ECAM-J July 2009



Hypothetical mechanism of action of *Gelsemium sempervirens*

9CH = gelsemine 10^{-22} moles/
 ≈ 100 molecules/liter
 ≈ 1 molecule every 10 cc!

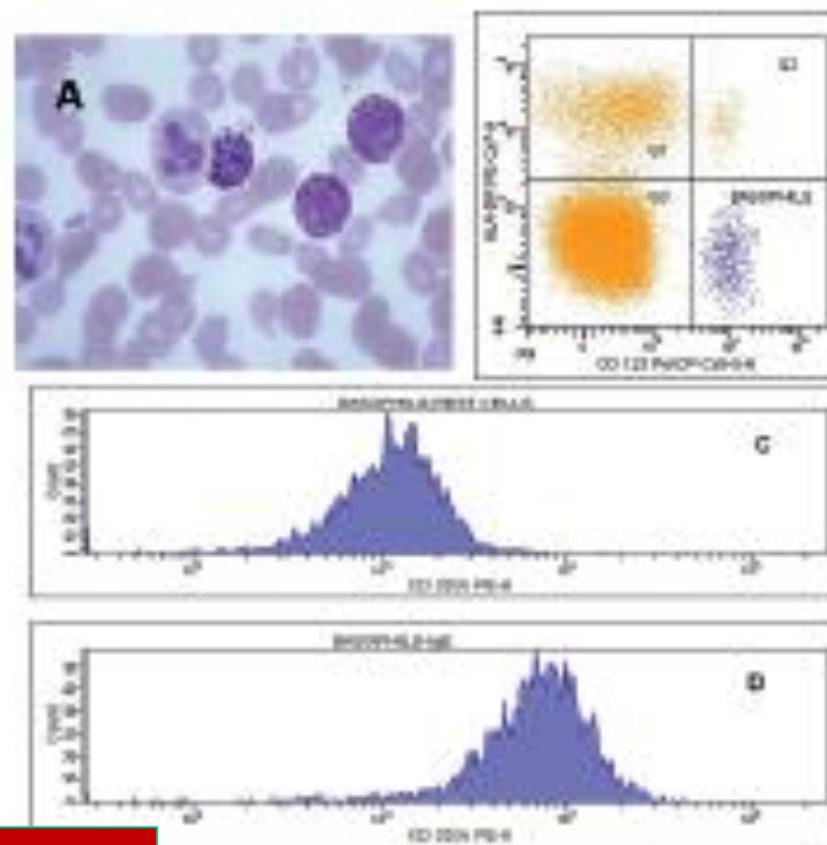
Injecting 0,3 cc/mouse
means 1 chance /30 of
having injected 1 molecule
in a mouse
(!)



Inhibition of CD203c membrane up-regulation in human basophils by high dilutions of histamine: a controlled replication study

Salvatore Chirumbolo · Maurizio Brizzi ·
Riccardo Ortolani · Antonio Vella ·
Paolo Bellavite

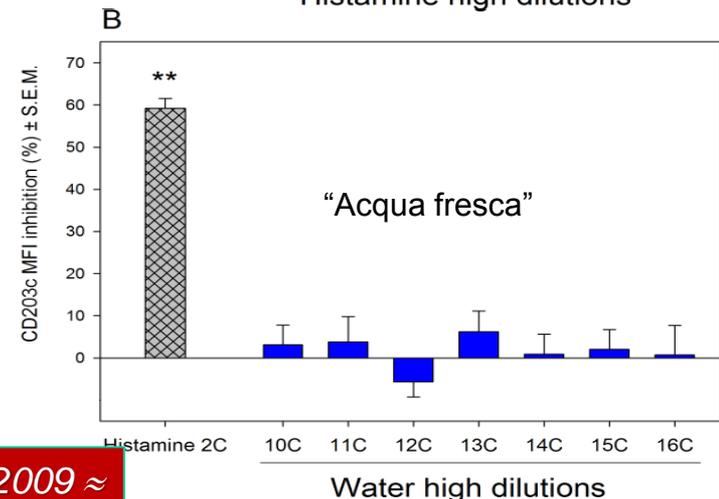
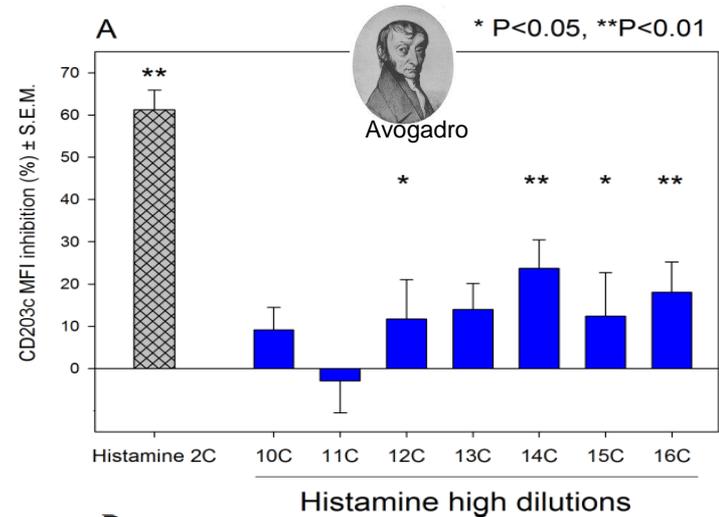
Received: 14 November 2008 / Revised: 3 April 2009 / Accepted: 9 April 2009
© The Author(s) 2009. This article is published with open access at Springerlink.com



Inhibition of CD203c membrane up-regulation in human basophils by high dilutions of histamine: a controlled replication study

Salvatore Chirumbolo · Maurizio Brizzi ·
Riccardo Ortolani · Antonio Vella ·
Paolo Bellavite

Received: 14 November 2008 / Revised: 3 April 2009 / Accepted: 9 April 2009
© The Author(s) 2009. This article is published with open access at Springerlink.com



Reports concerning the effect of highly diluted/succussed histamine on human basophils published in the mainstream literature

➤ IN SUMMARY:

- 14 publications (2 with multicentre studies)
 - 4 independent laboratories involved
 - 12 papers with positive results
 - 1 negative
 - 1 uncertain
- The amount of positive evidence is much higher than that usually accepted for conventional drgs.
 - The lack of acceptance of this phenomenon is independent of the evidence, but is depending on on the pre-judgement, which is contrary to the scientific way of thinking

nature

NATURE VOL. 333 21 JUNE 2008

When to believe the unbelievable

An article in this week's issue describes observations for which there is no present physical basis. There are good and particular reasons why prudent people should, for the time being, suspend judgement.



Ringraziamenti!!!!

- A.N.I.P.R.O.
- Associazione “Scolaro”
- Associazione Belladonna
- Boiron Laboratoires
- Banca Popolare
- Guna e Heel
- Omeopiacenza