DYNHOM Phase I research project

UNIO Brussels 13th of May 2017

A comprehensive approach

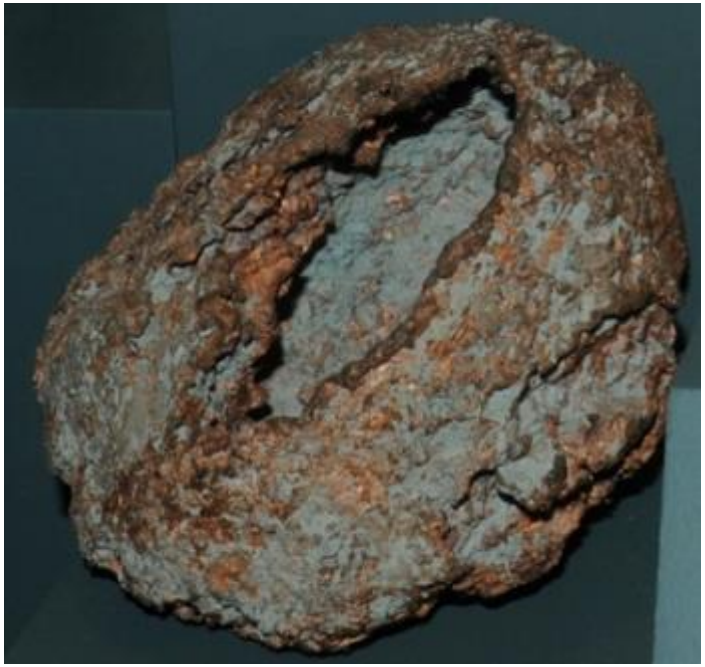
- ✓ **CUPRUM METALLICUM**
  - ✓ Gelsemium sempervirens
    - ✓ Scientific frame
      - ✓ Practice

Trituration GPP

Materia Medica
CUPRUM METALLICUM

Dr Yves Faingnaert

CUPRUM METALLICUM



- Cramps
- “NOT TO DISPLEASE”
- Seduction of love
  Dysfunction of love

CUPRUM METALLICUM

NEED APPROVAL –
SOCIAL STATUS :

- **Wants to please others**
- **Own greatness !**
- **Feels important !**
- **High position !**
- **Great man !**
- **Status endangered !**

CUPRUM METALLICUM

MODEST INTELLECT +
VERY AMBITIOUS :

- **Rigid**
- **Strict rules**
- **Control**
- **Compulsive – routine**

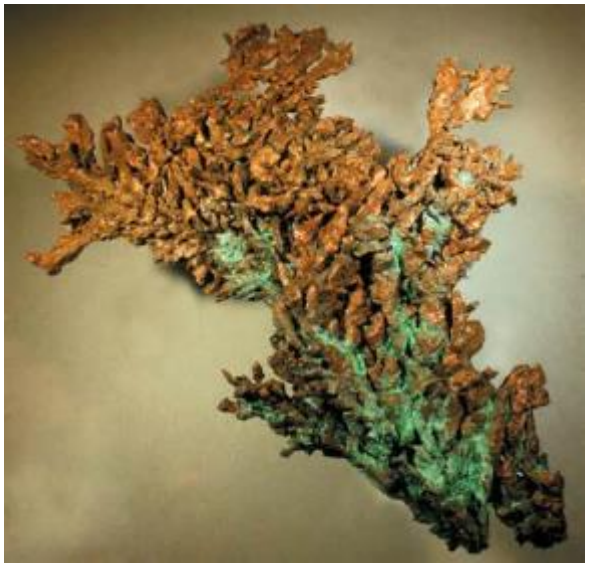
CUPRUM METALLICUM

- DOMINATION
- Hard worker – discipline
- Go-getter
- Serious
- Aversion company

CUPRUM METALLICUM

- Lack of humility
- Easily offended
- Hyper-sensitive
  - touched
  - watched
- Sensitive injustice
- Anger – aggressiveness
- Amusing – clownish

CUPRUM METALLICUM

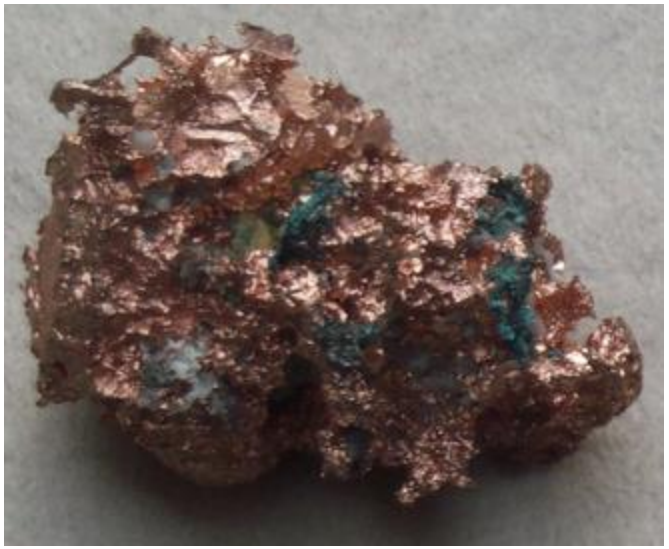


- Culpability – hypochondriac fear :
  - accidents
  - fire
  - dark
  - water
  - pursuit – death
- Careful
- Anxiety alone

CUPRUM METALLICUM

- **PHYSICAL – MENTAL EXHAUSTED**
- **No sense in work**
- **Refuses responsibility**
- **No longer admire beauty of things**

CUPRUM METALLICUM



CRAMPS – CONVULSIONS :

- **Thumb cramp**
- **Hiccough**
- **Jaws clenching**
- **Spasm calf – soles**

  < coitus
- **Chorea**

CUPRUM METALLICUM

BLUE :

- **Cyanotic face**
- **Nails**
- **Circles under eyes**
- **Sclerae**

THYROID CYST

CUPRUM METALLICUM

- Metallic taste mouth
- Gurgling esophagus drinking
- Liquid in nose

CUPRUM METALLICUM

- Spastic colon
- Colic
- Rumbling night

CUPRUM METALLICUM

Asthma :

walking against wind

stress

Hyperventilation

Bronchitis :

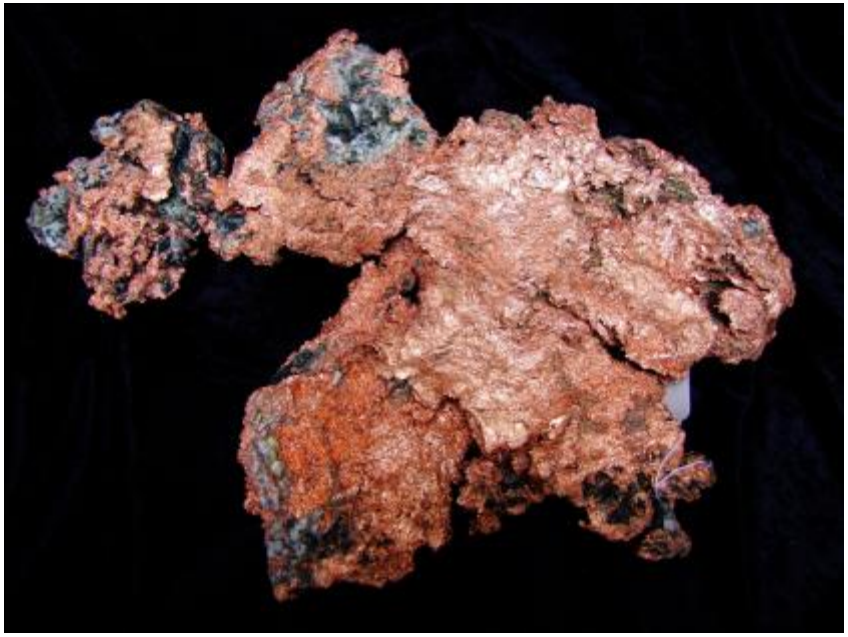
stiff coughing

CUPRUM METALLICUM

- Hypertension
- Angina pectoris

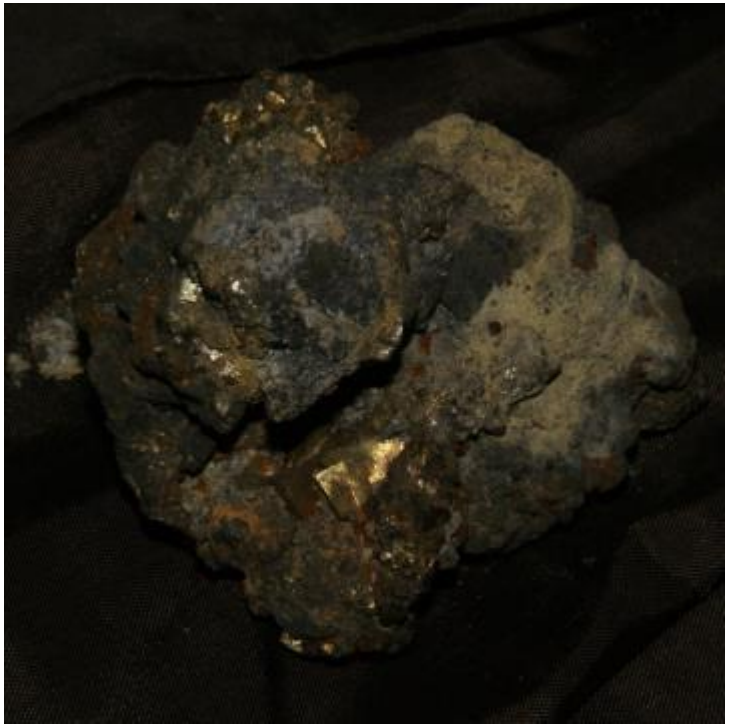
- Dysmenorrhea

CUPRUM METALLICUM



- Heel spurs
- Burning soles
  + ice cold hands
- Raynaud S.

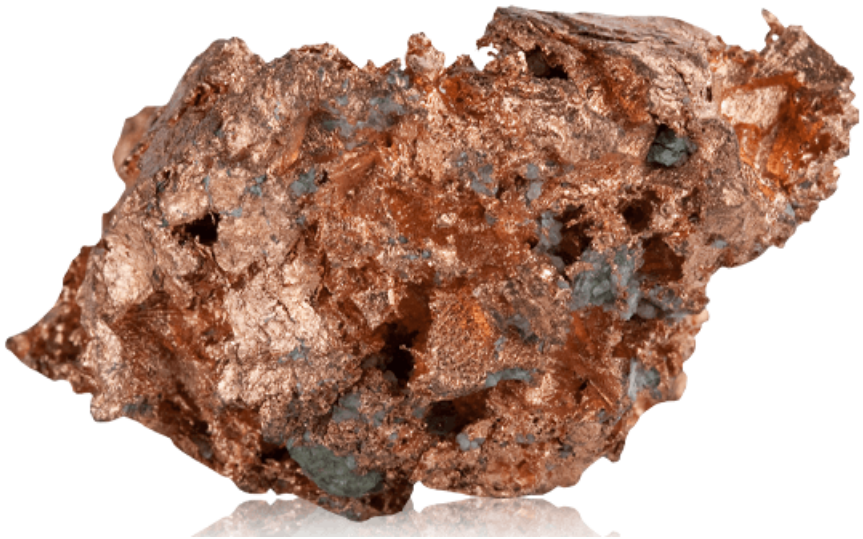
CUPRUM METALLICUM



- Thirst – cold drinks
- Eat quickly
- Much saliva

- Periodicity

CUPRUM METALLICUM



Aggravation :

- **Touch**
- **Sea air**
- **Cold**
- **Premenstrual**

CUPRUM METALLICUM

Amelioration :

- **Occupation**
- **Cold drinks**
- **Transpiration**

CUPRUM METALLICUM CHILD

- Clenched fists
  thumb inside
- Touched – watched
- Never looks mom's eyes
- Will not play

CUPRUM METALLICUM CHILD

- Bite – destroy
- Click
- Reflux-esophagitis
- Whooping cough
- Convulsions
  after punishment

CUPRUM METALLICUM

Thank you for your kind attention

Preparation GPP
Cuprum metallicum 4CH

Case Study
CUPRUM METALLICUM

Dr Hélène Renoux
Bourg la reine - France

Whooping cough of Claire.

- Contaminated by the whooping cough of her daughter.
- Coughing fits which takes the breath away.
- Pains in ribs "as if they entered her the thorax".
- Dry cough and some expectorations.
- Woken by respiratory spasms: apneas.
- Cough ameliorated by drinking.
- Increased thirst.

Whooping cough of Claire.

- She received unsuccessfully:
- BRYONIA
- DROSERA
- PERTUSSINUM
- IPECA
- ACTEA RACEMOSA

  (which ameliorated a little bit the pain in ribs)

Whooping cough of Claire.

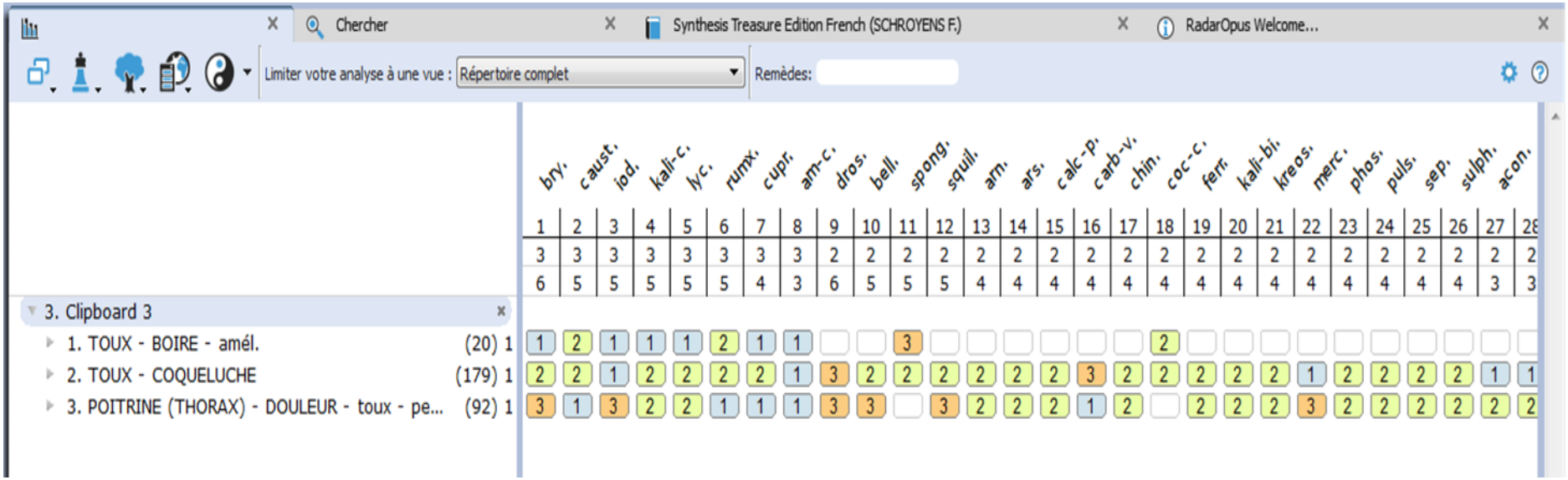
- She has a heavy personal history.
- Constantly depreciated, humiliated, manipulated.
- During pregnancy, almost suicide several times
- Difficult delivery, she describes the maternity team as abusive.

Whooping cough of Claire.

- She follows psychanalyse.
- She says “I am a beautiful person”.
- While they persuaded me that I was a bad-pleasant-child (my mother),
- or a servant (my father).
- Thus balance between 2 perceptions:
- - Beautiful person
- - Deep depreciation

Repertorisation

- COUGH – DRINKING – amel (20)
- COUGH – WHOOPING (179)
- CHEST – PAIN – Cough – during – agg – pricking pain (92)



Prescription : Cuprum metallicum 30CH 5 pills a day till amelioration

Whooping cough of Claire: follow-up

- Pain in ribs : cured in 24h
- Nightly apneas : cured in 24h
- Cough : cured in 6 days
- Slight resurgence of cough on day 6 when pills of Cuprum are stopped, little intensity and for a short time
- Quiet and confident behavior

Whooping cough of Claire - conclusion

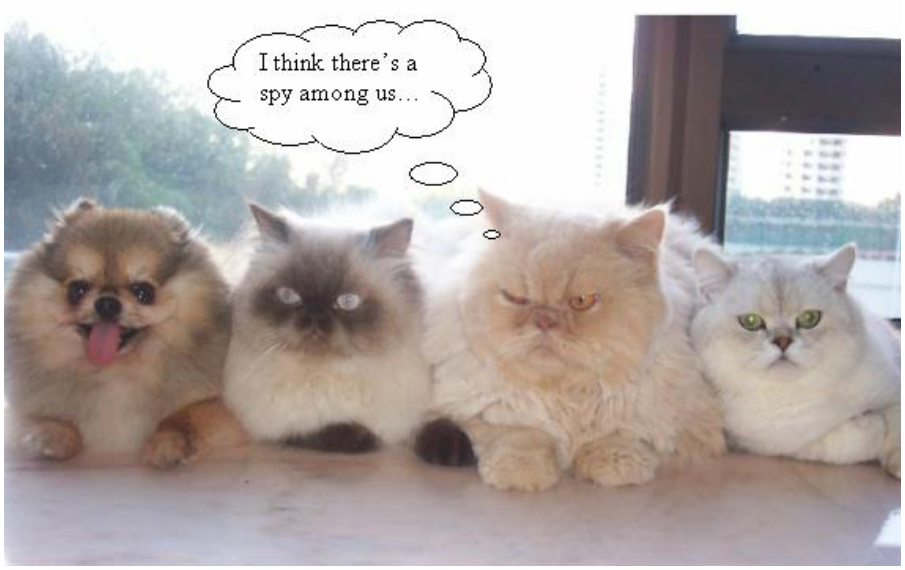
- The future will tell us if Cuprum is simply, in this case an acute, incidental, strangely resonant remedy with the personal history of the patient, or a more chronic remedy which will know how to solve other pathological situations.

Veterinarian Case Study
CUPRUM METALLICUM

Dr Arlette Blanchy

Cuprum animal case

- I know this owner much more for her numerous cats than for her dog, Candy.
- It is a female dog, of indefinite breed, almost the same size of the cats living with her.



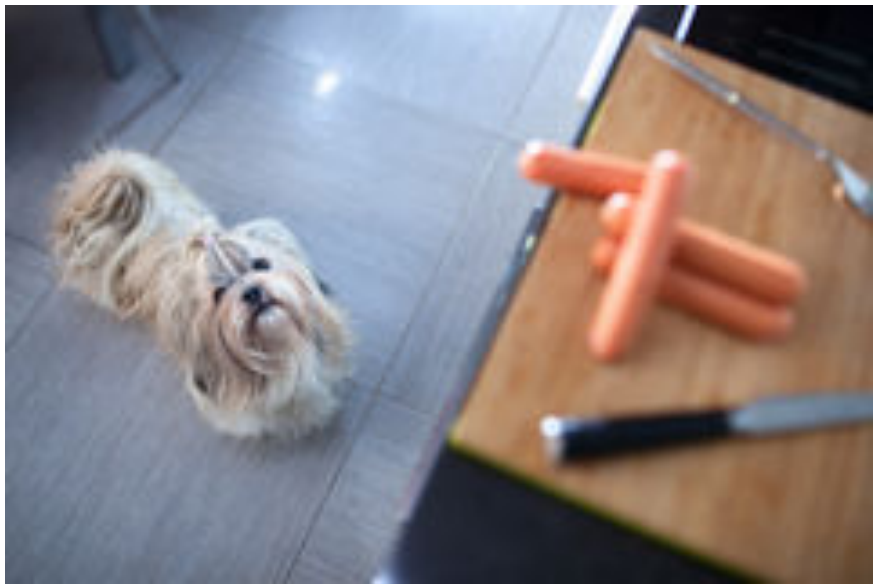
Cuprum animal case

- Very sweet character, quiet, but fast frightening and easily trembling.
- Only one peculiarity, she always drink a lot (without pathological feature)

Cuprum animal case

- Suddenly Candy presented an epileptic fit, said the owner.
- She could explain that the dog was lying on his side, trembling, quivering and peddling during some time. She explained that may be there is a reason for this fit.

Cuprum animal case

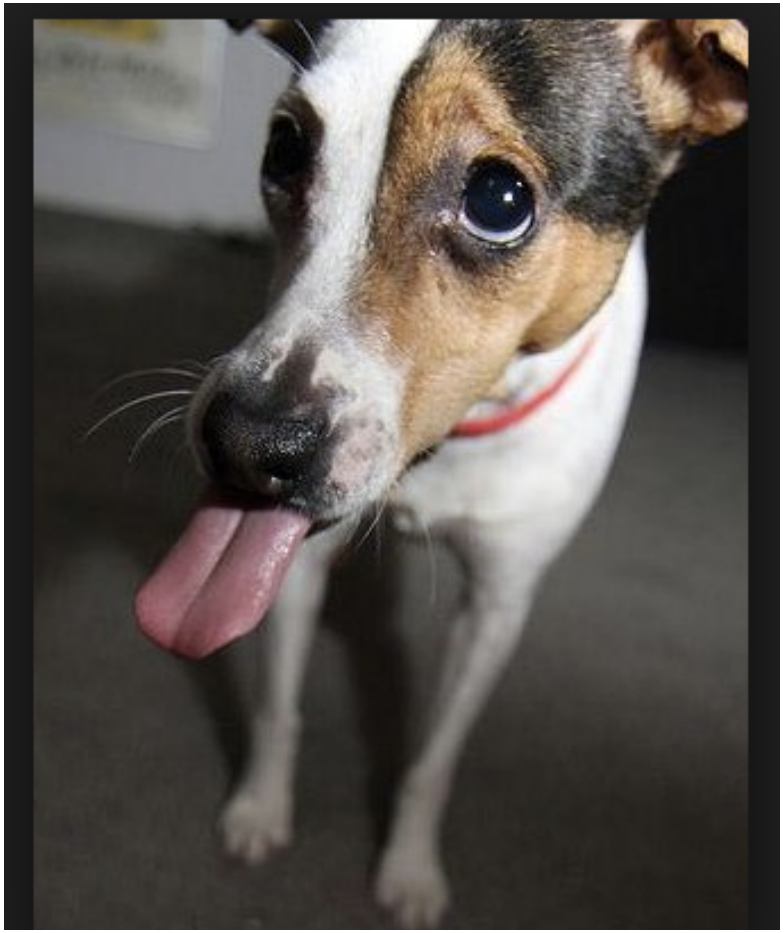


- When the owner is in the kitchen, Candy is always there also, ready to catch in a fly anything that could fall from the work plan.
- Indeed something has fallen, poor Candy tried to catch it, but it was the cutting board itself. The board hit the head of the dog.

Cuprum animal case

- The owner came directly to me with her dog.
- Still a bit dizzy, Candy can stand on her, little bit shaky, legs.
- Rapid respiration, she is still trembling. Nothing to see about head position or at eyes level.

Cuprum animal case

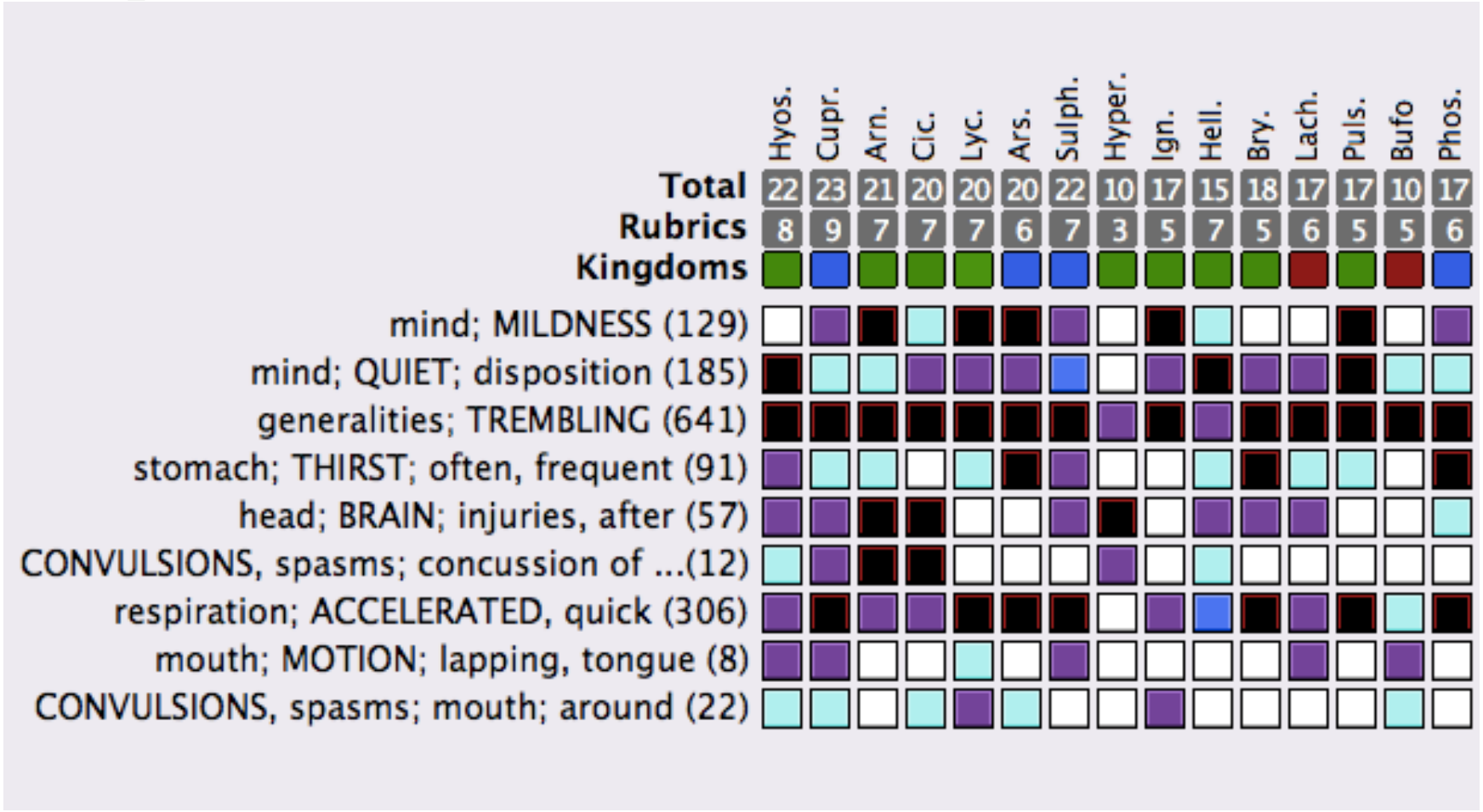


- Some, a little bit curious, symptoms are observed (happy time for an homeopath).
- She is moving the tongue as a snake and involuntary spastic movements of the lips are observed.

Cuprum animal case

- **Selected symptoms**
- mind; MILDNESS (129)
- mind; QUIET; disposition (185)
- generalities; TREMBLING (641)
- stomach; THIRST; often, frequent (91)
- head; BRAIN; injuries, after (57)
- generalities; CONVULSIONS, spasms; concussion of brain, after (12)
- respiration; ACCELERATED, quick (306)
- mouth; MOTION; lapping, tongue (8)
- face; CONVULSIONS, spasms; mouth; around (22)

Cuprum animal case



Cuprum animal case

- After differential analyse of the first remedies of this repertorisation, a dosis of Cuprum 30 K, 5 pillules, was given directly.
- Why 30 K? Because it is the potentization I have in my office.

Cuprum animal case

- Taking some little time further for questions about owner cats, Candy fall asleep on her knees.
- This is a good sign already observed for other cases in acute situations.
- 20 minutes later on, when owner was leaving, Candy could stay on her legs, presenting no trembling and no spastic movements of tongue or lips anymore.

Cuprum animal case

- Next day, the owner confirmed by phone that Candy did sleep well and everything was fine.
- I do not know if Candy learns to be more beware in the kitchen.

Preparation GPP
Cuprum metallicum 30CH

Epigenetic Research
CUPRUM

PhD Etienne Capieaux

Biological evidence for an effect of high homeopathic potencies using biomolecular tools

Etienne CAPIEAUX
Ir PhD

DYNHOM 13 mai 2017

Cuprum

L'homéopathie est une discipline considérant l'homme dans sa globalité mentale et physique

L'homéopathie dans toutes ses composantes est reliée à la vie

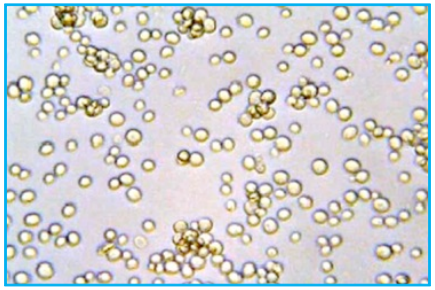
L’homéopathie est reliée à la vie

Impacts de médications homéopathiques

sur des organismes vivants

Impacts de médications homéopathiques sur des organismes vivants

High Homeopathic Potencies



→ Biological activities

- **Il nous faut donc des outils pour le faire**
- **Nous irons chercher des outils classiques que l'on trouve dans des milieux hospitaliers ou universitaires**
- **Et nous utiliserons des protocoles expérimentaux classiques du domaine allopathique**
- **Nous remplacerons néanmoins les échantillons pondéraux avec des échantillons informationnels**
- **Ces outils sont issus de la biologie moléculaire**

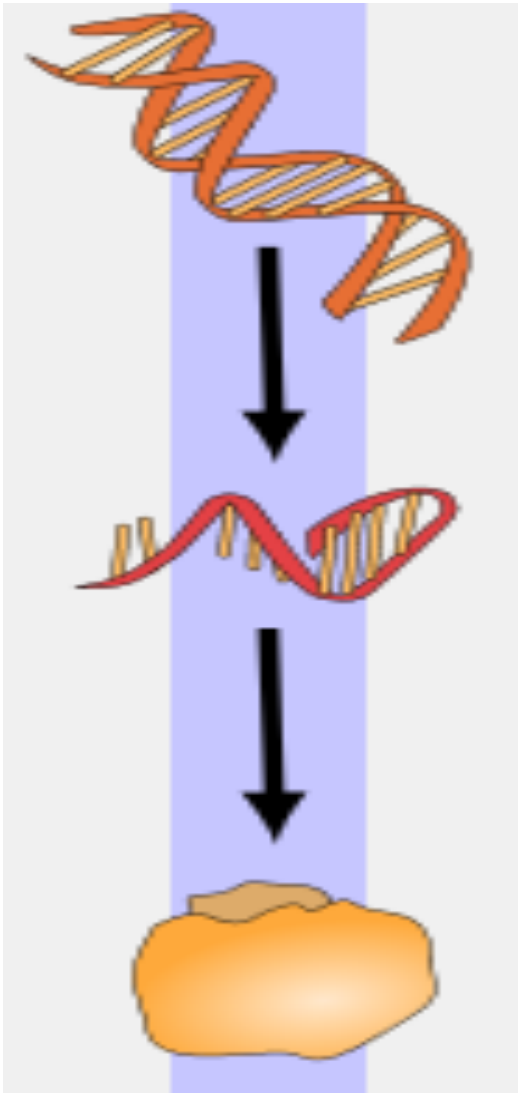
Expression génique

ADN

(gènes)

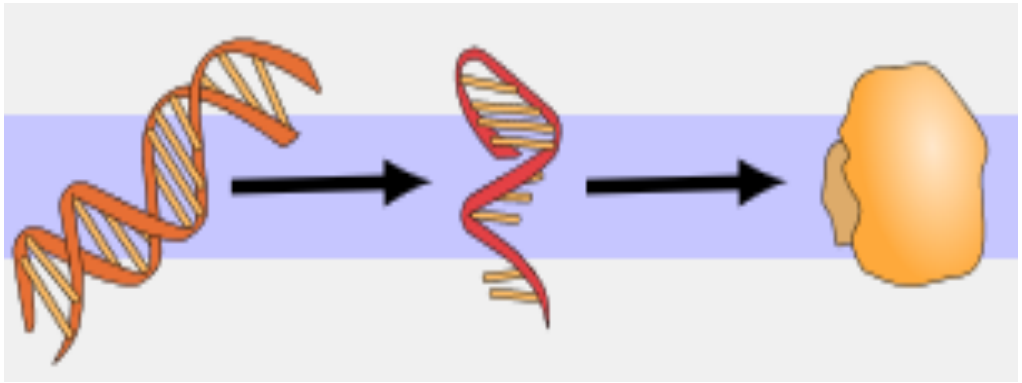
ARNm

protéine



Transcription Traduction

ADN → ARNm → Protéine → Activité enzymatique



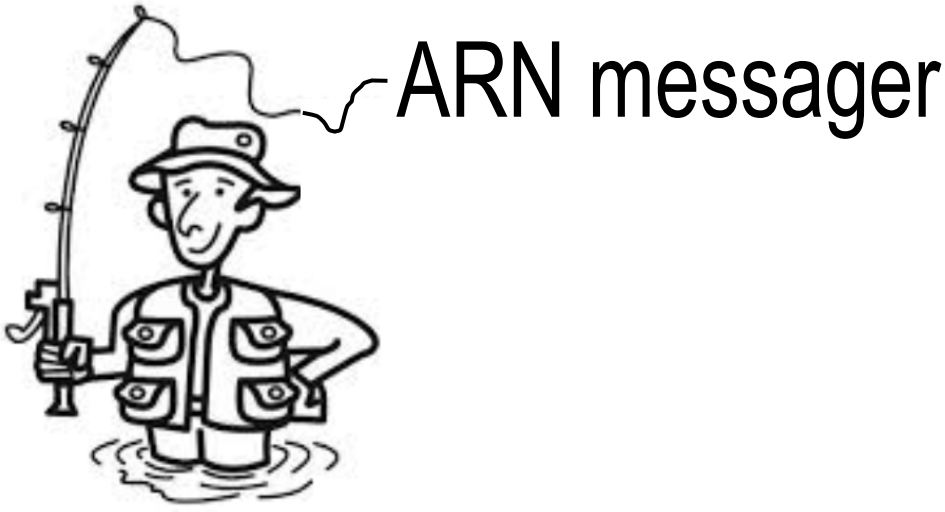
Expression génique

Transcription

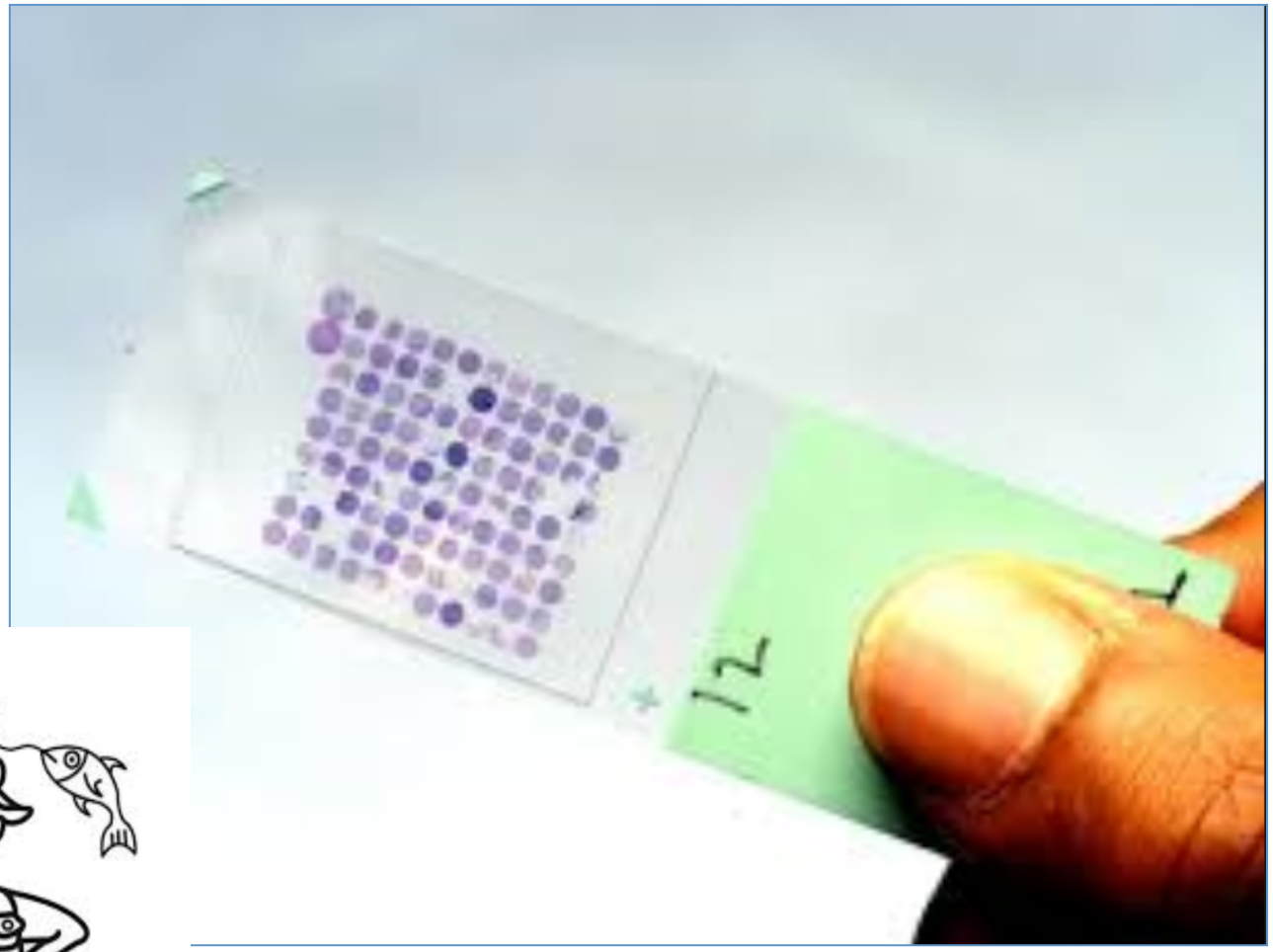
Traduction

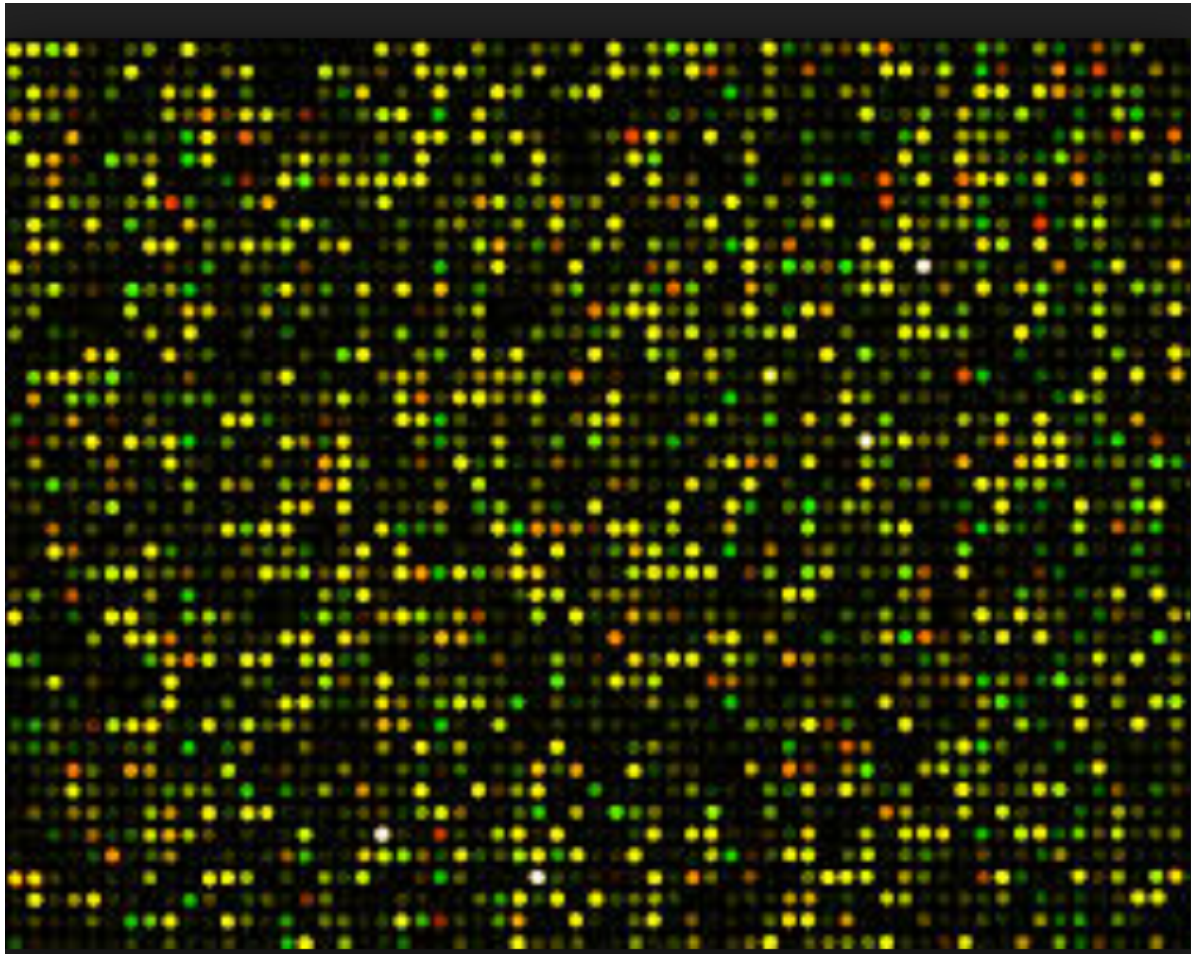
DNA → mRNA → Protein → Enzymatic activity

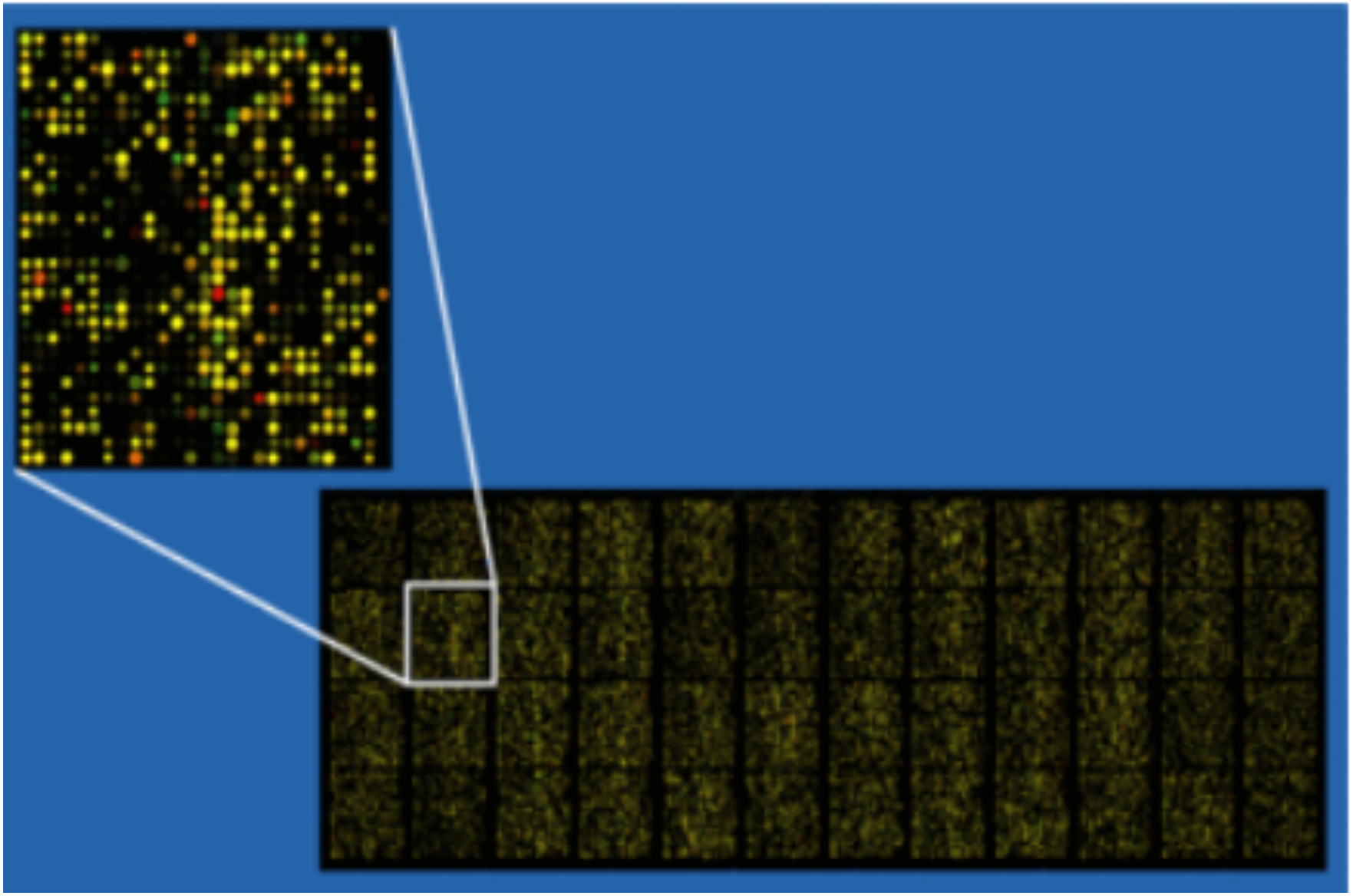
Expression génique

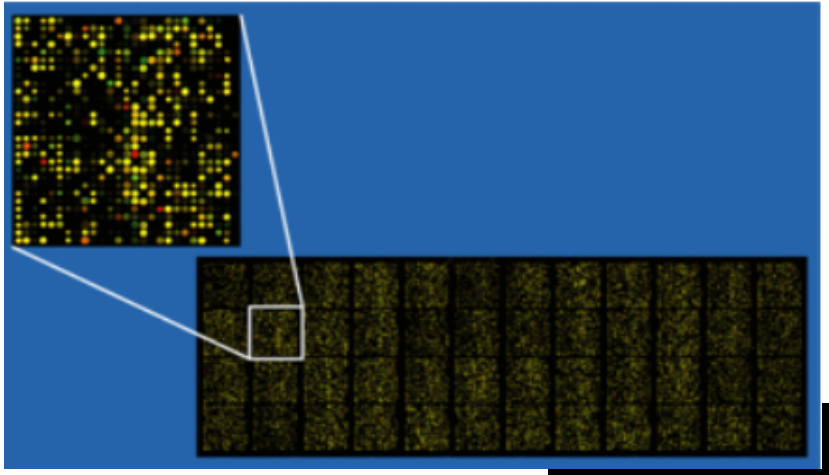


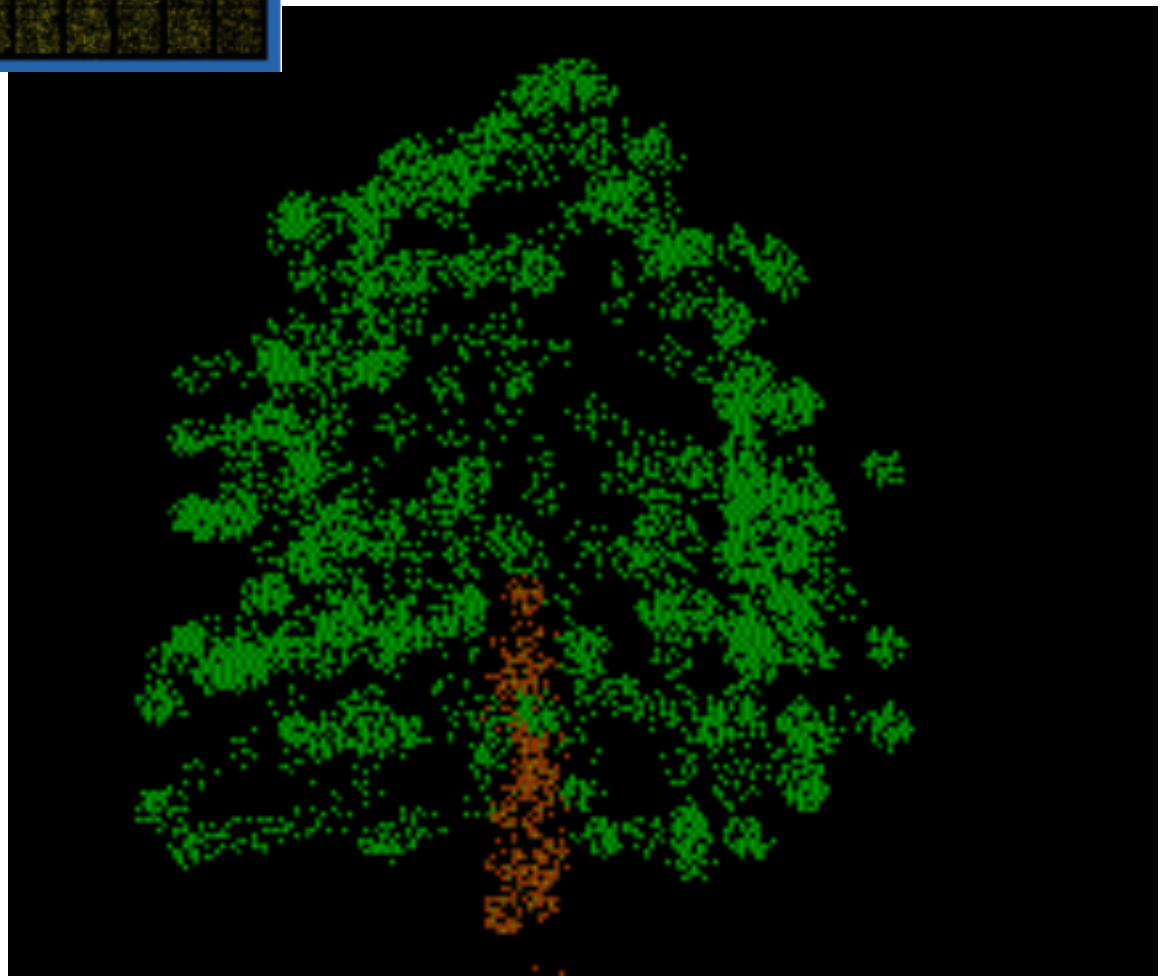
Puce à ADN (microarray)











Epigénétisme

Epi (Spicum)

”au dessus ”

Facteurs environnementaux

Alimentation

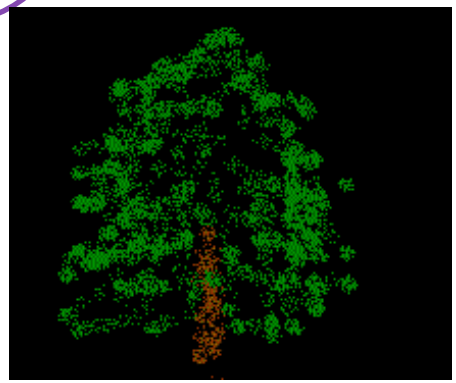
Hygiène de vie

Climat émotionnel

Climat hormonal

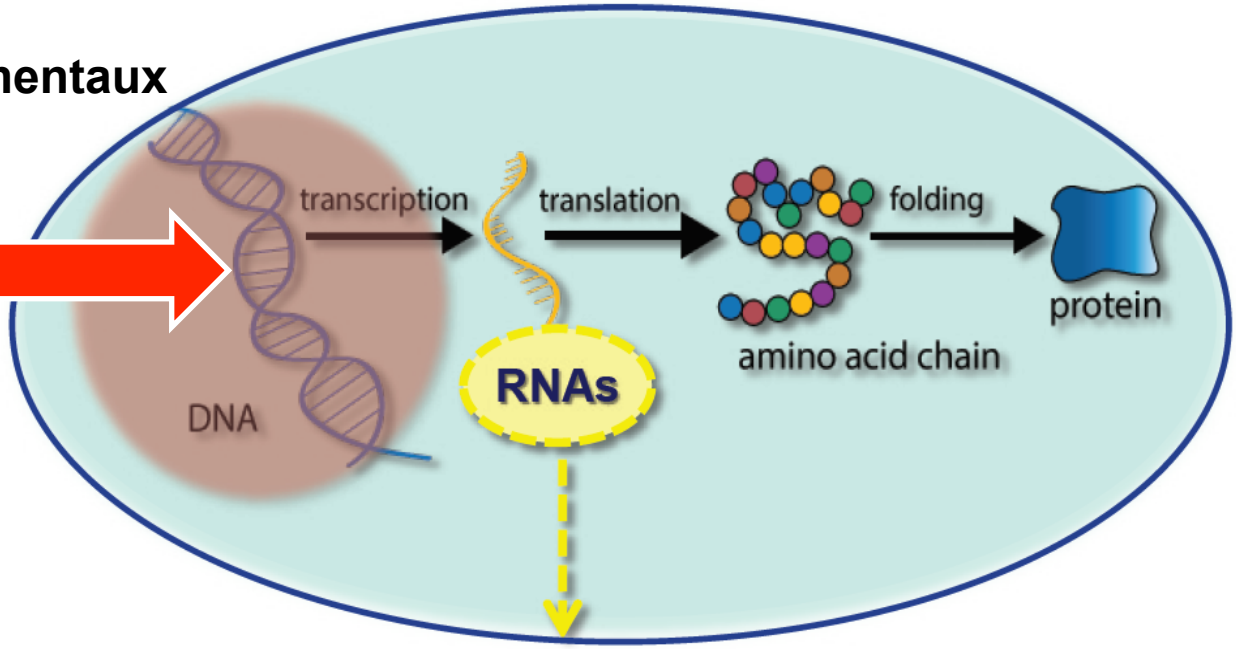
Médicaments allopathiques

Médicaments informationnels



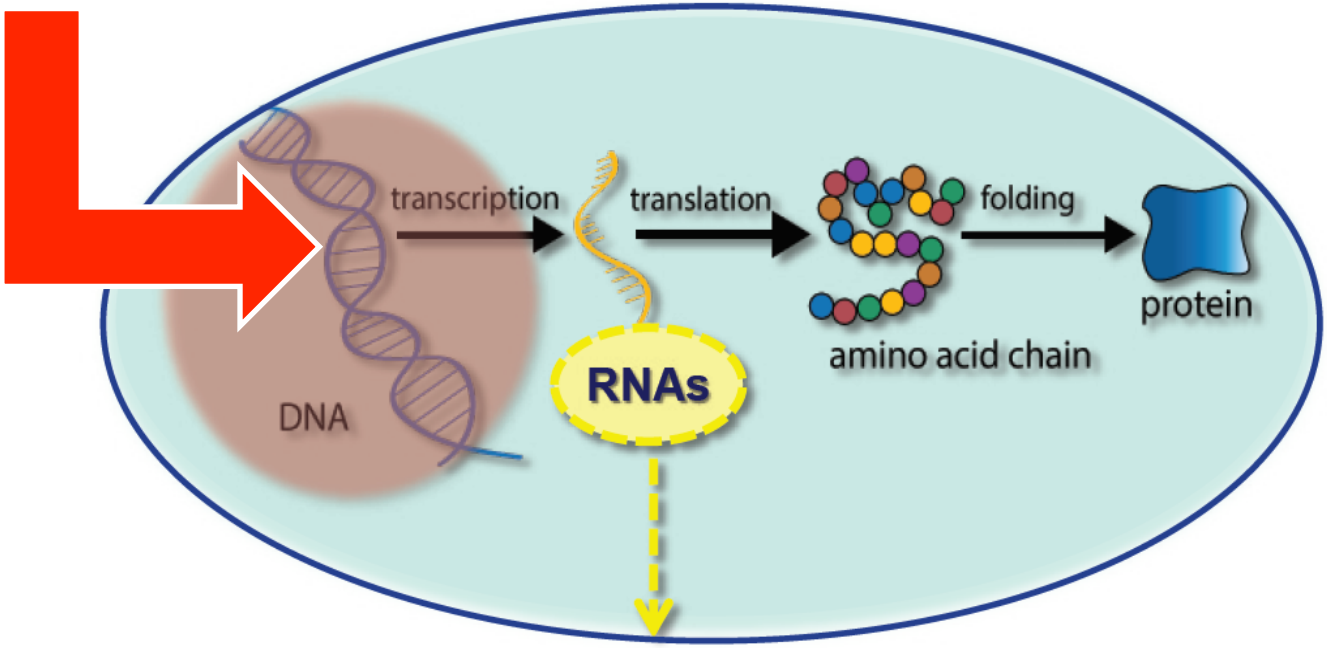
Impacts environnementaux

Conséquences phénotypiques



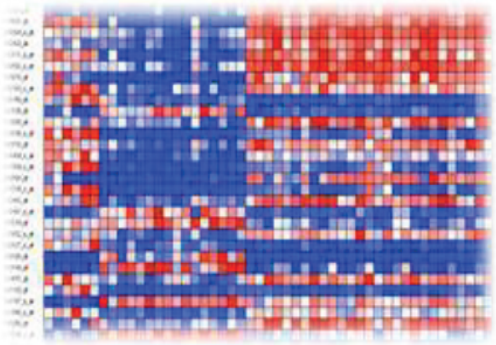
Expression génique

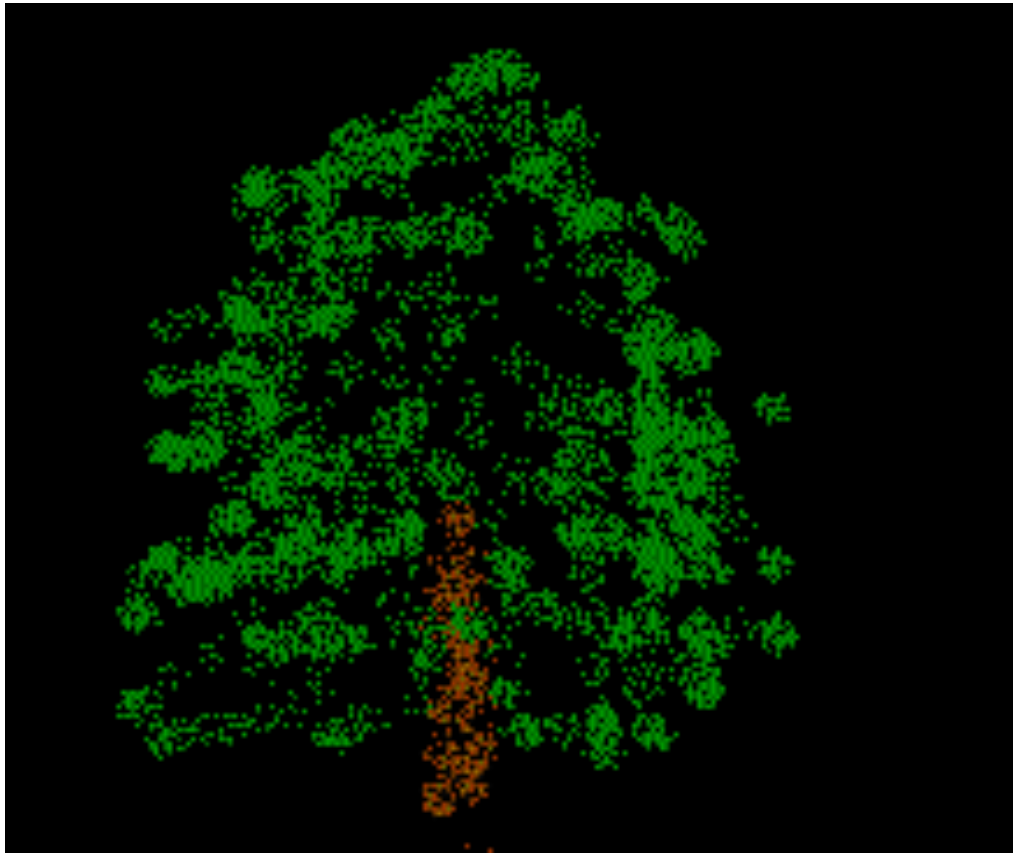
Médicament homéopathique



Conséquences phénotypiques

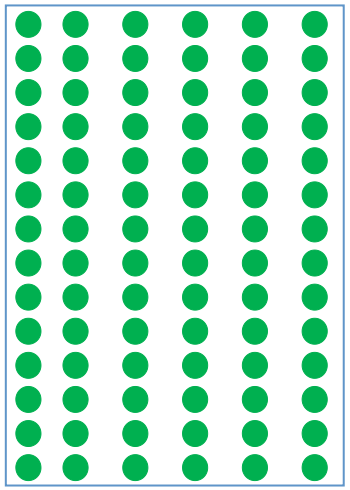
Expression génique

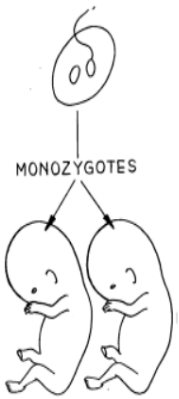


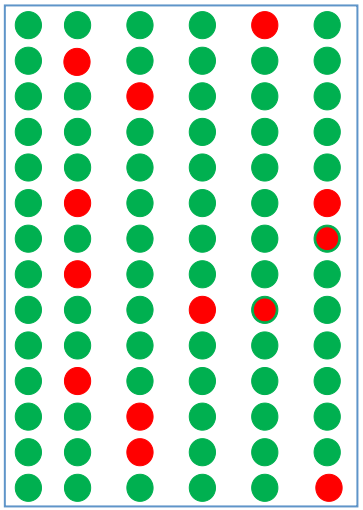


Jumeaux monozygotes

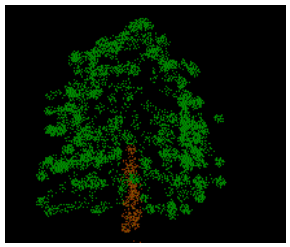
Génétiquement identiques

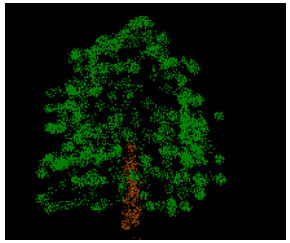


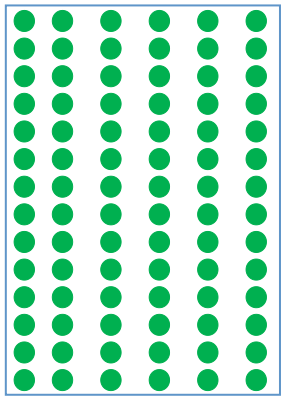


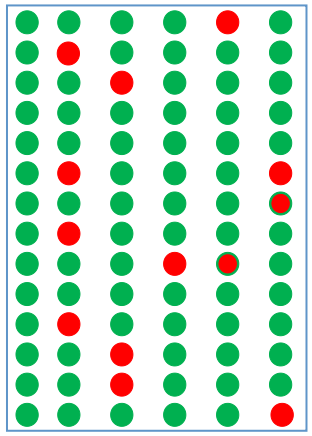


Jumeaux monozygotes









Génétiquement identiques

Avec l'âge des différences phénotypiques apparaissent

Jumeaux monozygotes

Génétiquement identiques et avec un gène du cancer (BRCA)

K a 45 ans

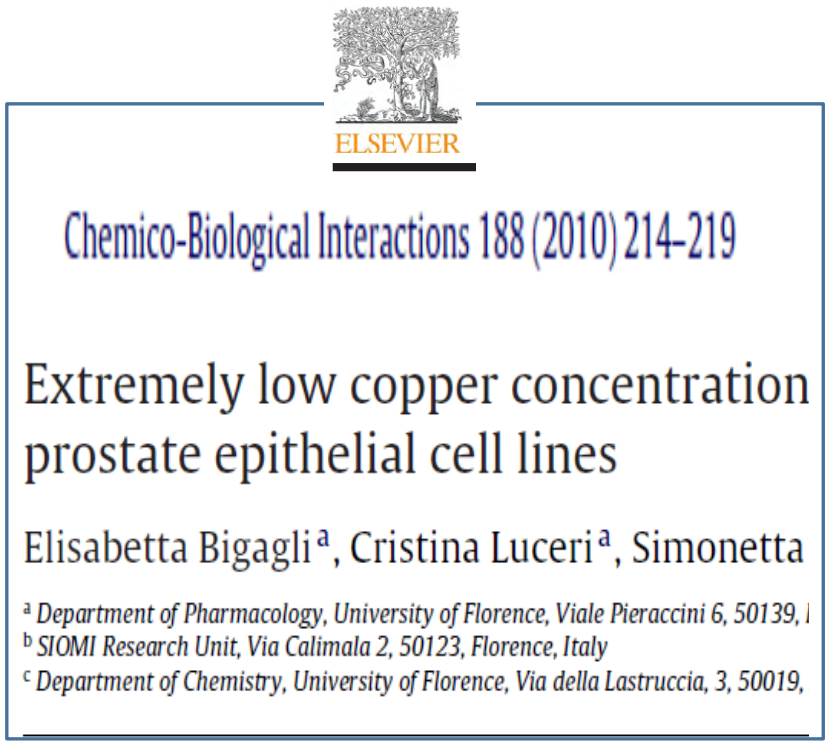
Pas de K

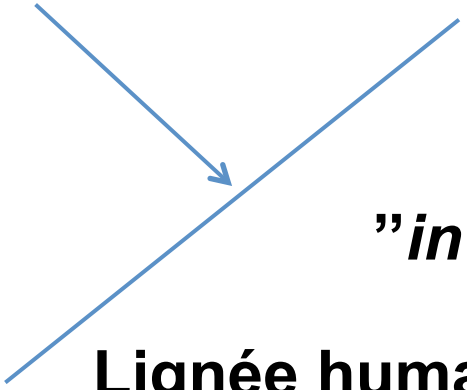
Les très hautes dilutions de cuivre impactent sur la vie

Les très hautes dilutions de cuivre impactent sur la vie

Et ce…. vu par la biologie moléculaire

CU++ 10-^{17} Molaire





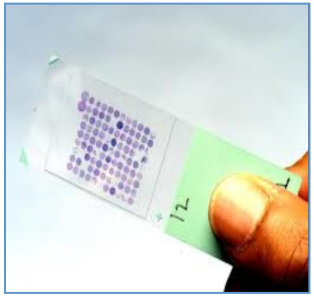
”*in vitro*”

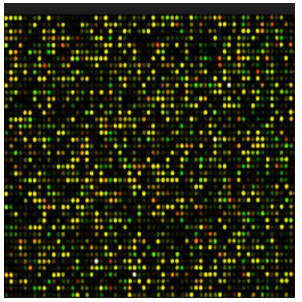
Lignée humaine (RWPE-1)

Non néoplasique

Epithélium prostatique

Puce à 41.000 spots





-Cyt C Oxydase (COX15)

-Metallothionéines (MT1B-MT1E-MT1G-MT1H)

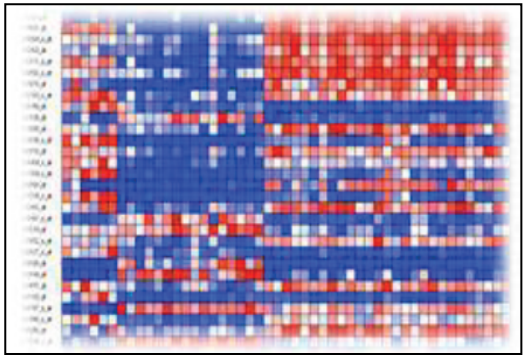
-Heat shock protein (HSP90AA1)

-Transporteurs de solutés (SLC25A24-SLC43A2)

-Enz. de conjuguaison de l'ubiquitine (UBE20-UBPH-USP48)

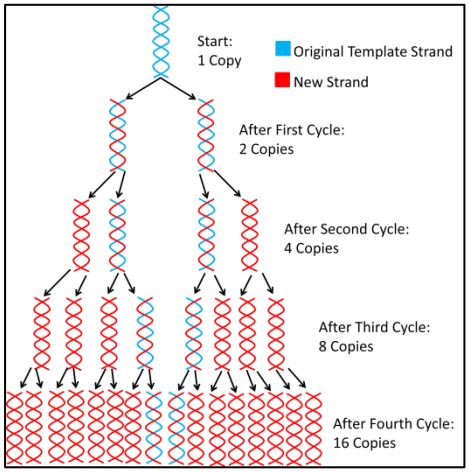
Résultats confirmés par 2 méthodes différentes

Micro-arrays



Puce à 41.000 spots

RT-PCR



Merci !

Merci !

Et à tout à l’heure pour Gelsemium !!!

Particles search **CUPRUM METAL.**

MD Michel Van Wassenhoven

Mass Spectrometry SP-ICP-MS

- Cuprum metallicum.
  - SP-ICP-MS (metals): Single Particle Inductively Coupled Plasma Mass Spectrometry. in 20cc of 4CH dynamized water solution maximum 0,02µg of cuprum would be expected and 0,2g of Lactose.
  - Results in Cupr 4CH: In the solution, there is a **huge background signal but these particles are far too small to be detected by single particle ICP-MS**, the detection limit for copper particles is 45 nm (52 nm for Cu2O). Later on we did the same using a concentrate after lyophilisation of 200cc of solution with a similar outcome.

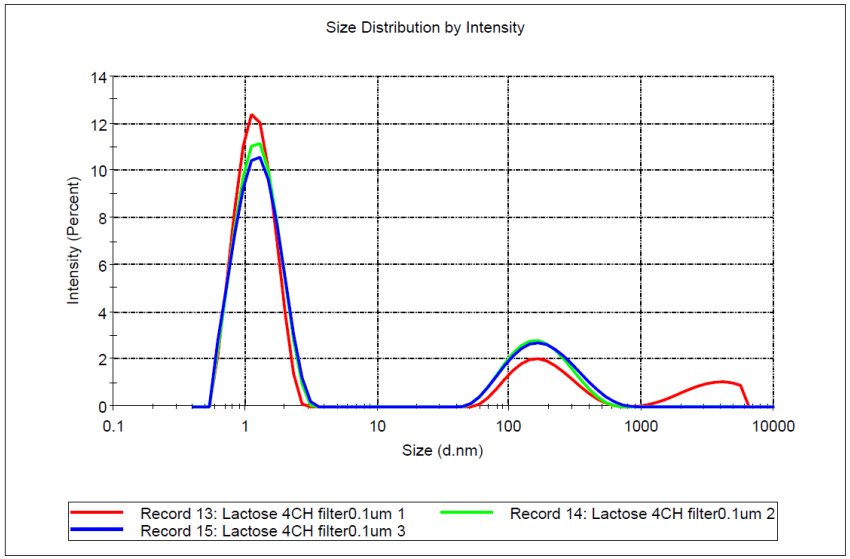
DLS – Zeta Potential
Cuprum metallicum 4CH

DLS : Dynamic Light Scattering

- Cuprum metallicum 4CH.

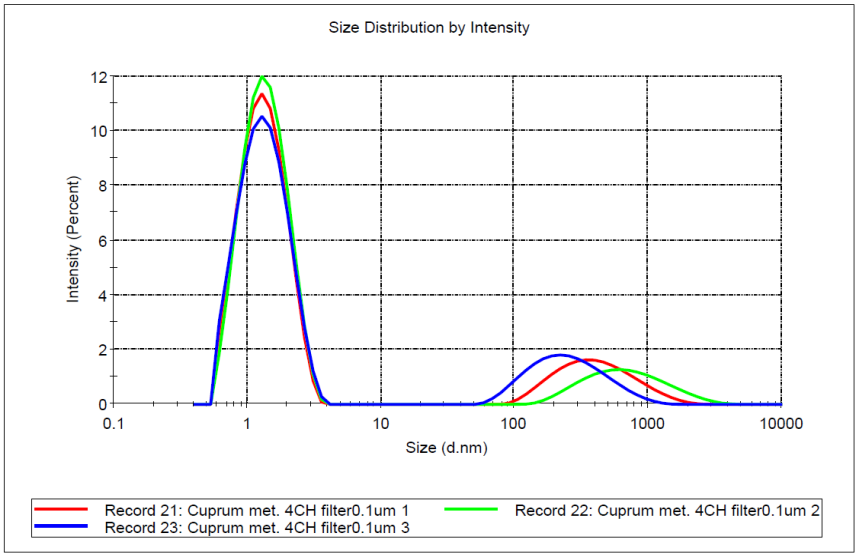
Results

Lactose



Mean 1,29 nm

Cuprum



Mean 1,41 nm

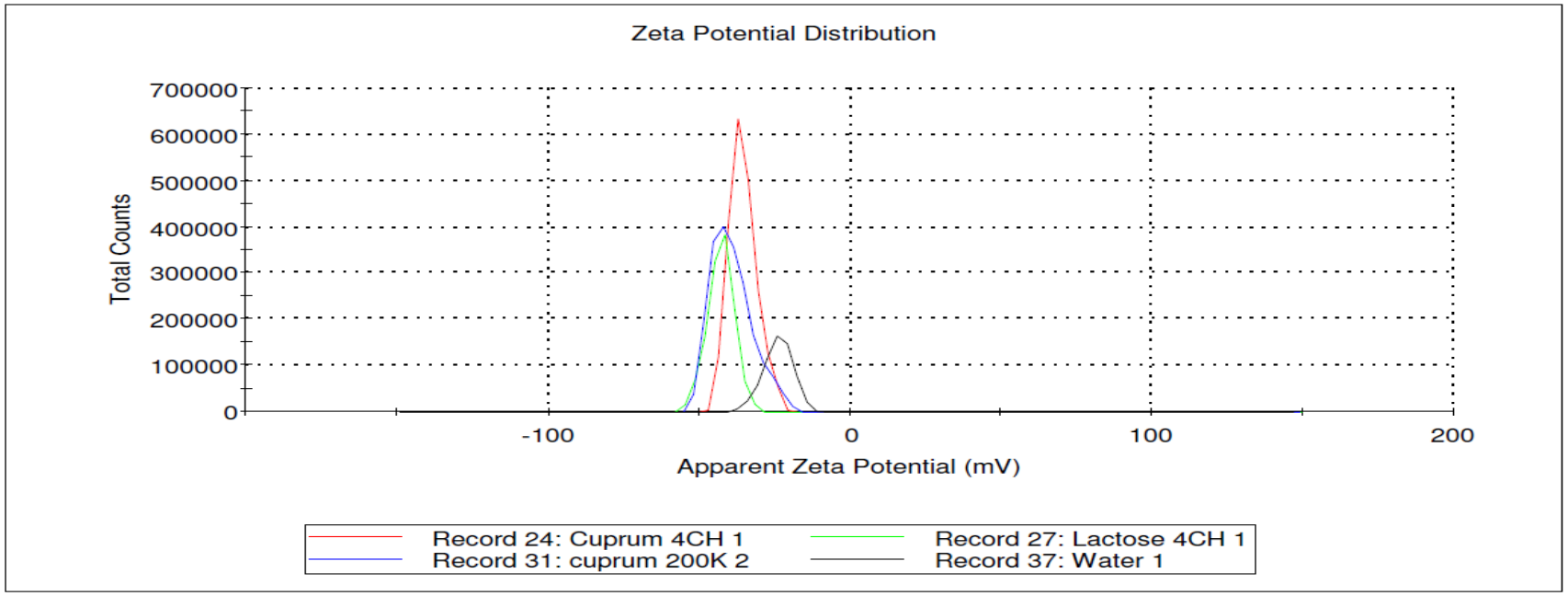
DLS : Dynamic Light Scattering

- Cuprum metallicum.

- **RESULTS conclusions:** Similar size of small nano-particles in cuprum 4CH and lactose 4CH, **between (0,5nm/2,5nm).** The presence of the expected 0,02µg of coper in 20cc cuprum metallicum 4CH dynamization is not yet confirmed but possible (small mean size difference compared with lactose control). These nano particles are **not detectable with DLS above 4CH.** Greater heterogeneity of particles in lactose 4CH.

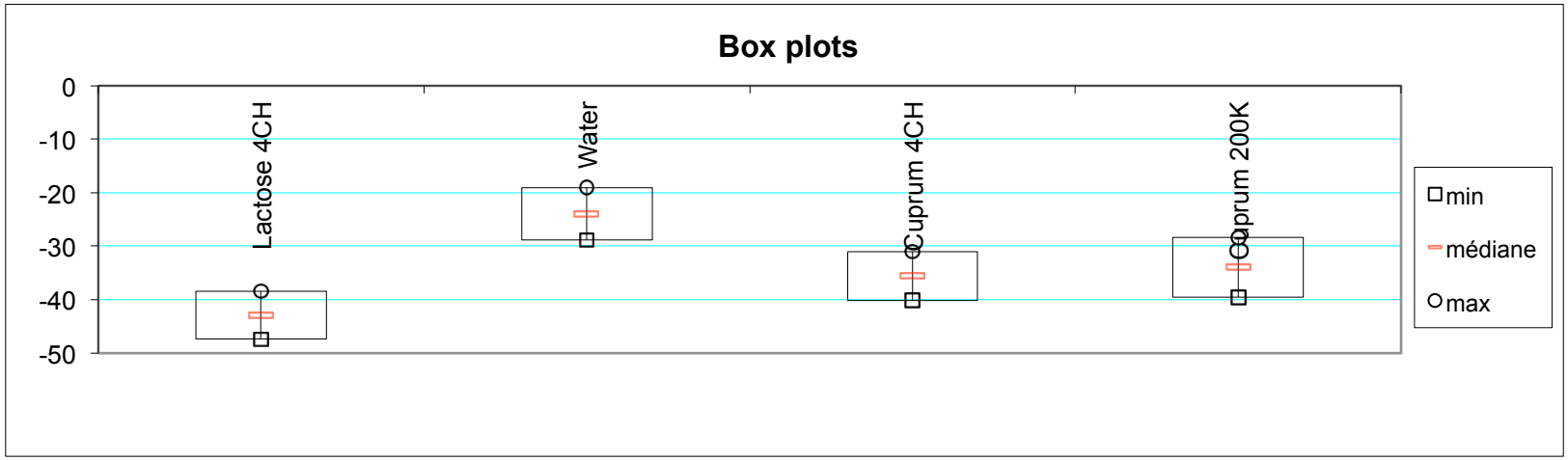
ZP : Zeta-Potential

- Cuprum metallicum.
- Zeta potential is a method for the measurement of the electrostatic potential at the electrical double layer surrounding a nanoparticle in solution.
- Zeta potential Cuprum 4CH median value -35,6mV, lactose -42,9mV, Water -24mV, Cuprum 200K -39,3mV. Note also that the total counts is significant higher and valid for Cuprum 4CH

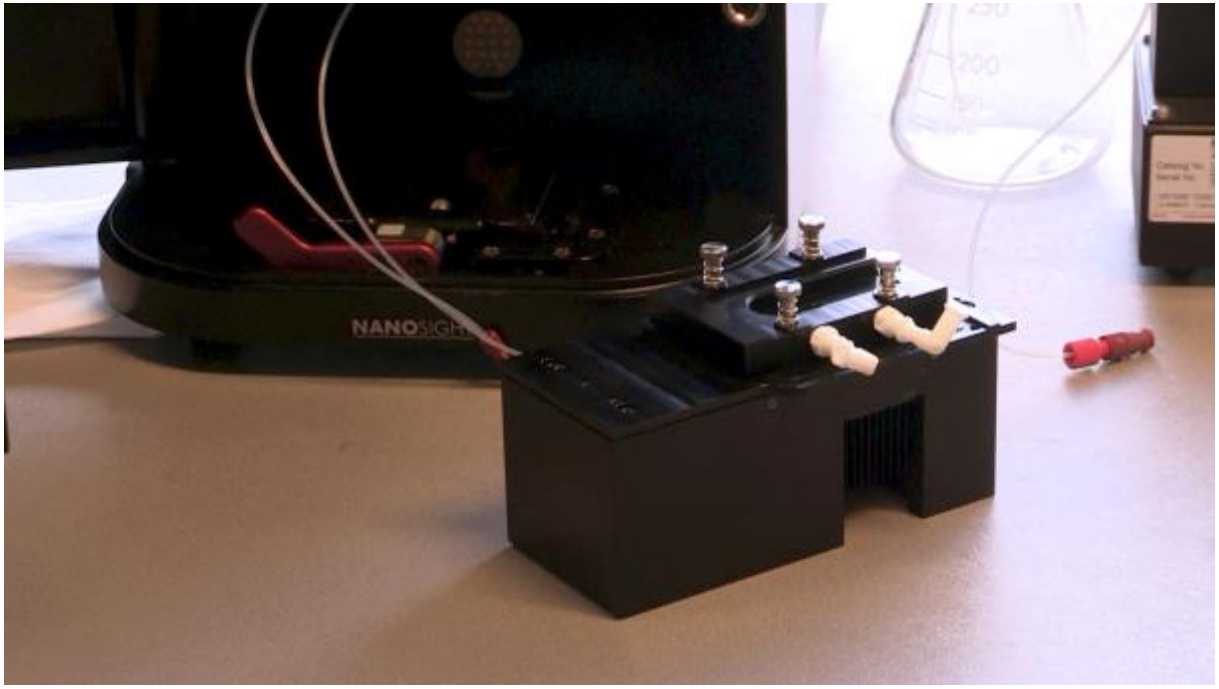


ZP : Zeta-Potential

- Cuprum metallicum.
  - **In opposition to DLS, if the preparation is filtered (filter 0,1µ) this signal became unstable and irrelevant. This means that other detected larger particles (see further) play a role in stabilisation of this information.**
  - **With zeta potential the mean difference between water control and other samples is significant and possible between Cuprum 4CH and lactose control.**



NTA
Cuprum metallicum



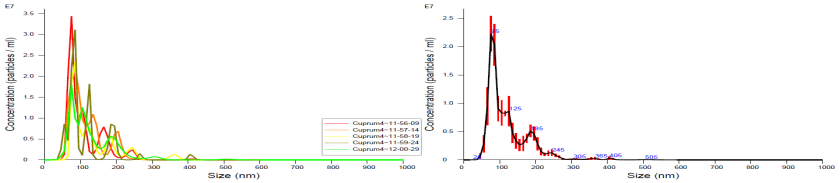
NTA : Nanoparticle Tracking Analysis

- Cuprum metallicum

Nanosight:

- This technology is limited to particles above 20nm, we could see a significant amount of particles only in unfiltered samples.
- No particles in pure undynamised water control.

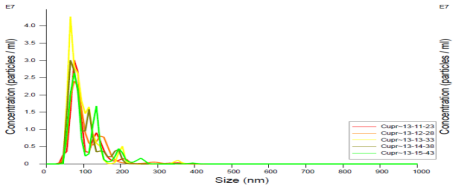
Cupr 4CH



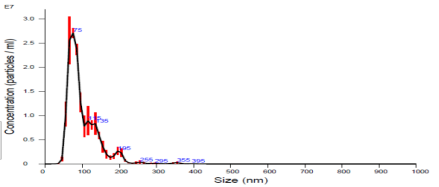
FTLA Concentration / Size graph for Experiment:
Cuprum4CH 2015-07-23 11-56-02

Averaged FTLA Concentration / Size for Experiment:
Cuprum4CH 2015-07-23 11-56-02
Error bars indicate + / -1 standard error of the mean

Cupr 10^{-8}

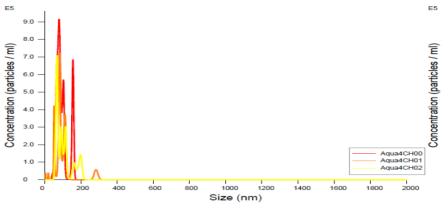


FTLA Concentration / Size graph for Experiment:
Cuprum 10-8diluted 2015-07-23 13-11-01

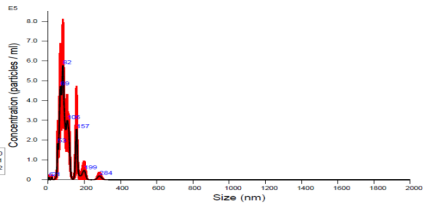


Averaged FTLA Concentration / Size for Experiment:
Cuprum 10-8diluted 2015-07-23 13-11-01
Error bars indicate + / -1 standard error of the mean

Aqua pura 4CH

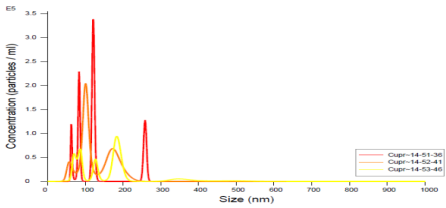


FTLA Concentration / Size graph for Experiment:
Aqua4CH

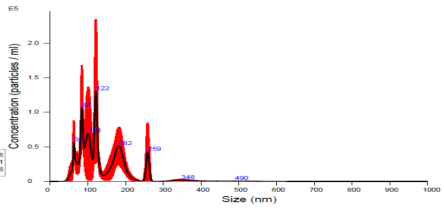


Averaged FTLA Concentration / Size for Experiment:
Aqua4CH
Error bars indicate + / -1 standard error of the mean

Cupr 30K

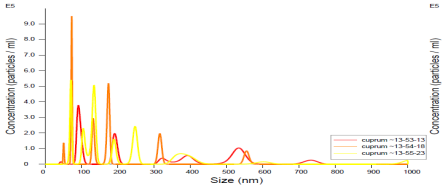


FTLA Concentration / Size graph for Experiment:
Cuprum30K-PET 2016-07-12 14-50-01

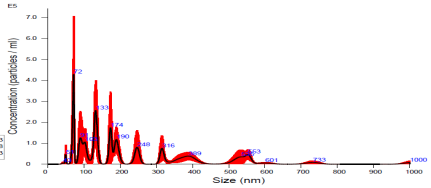


Averaged FTLA Concentration / Size for Experiment:
Cuprum30K-PET 2016-07-12 14-50-01
Error bars indicate + / -1 standard error of the mean

Cupr 30CH

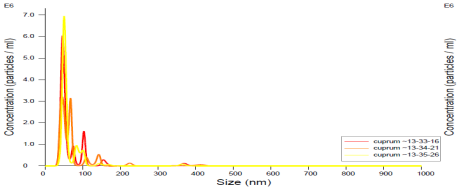


FTLA Concentration / Size graph for Experiment:
cuprum 30CH 2015-11-17 13-50-54

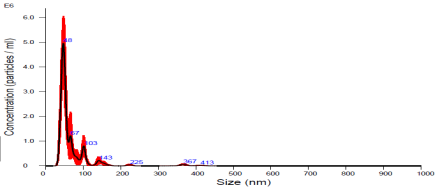


Averaged FTLA Concentration / Size for Experiment:
cuprum 30CH 2015-11-17 13-50-54
Error bars indicate + / -1 standard error of the mean

Cupr 200K

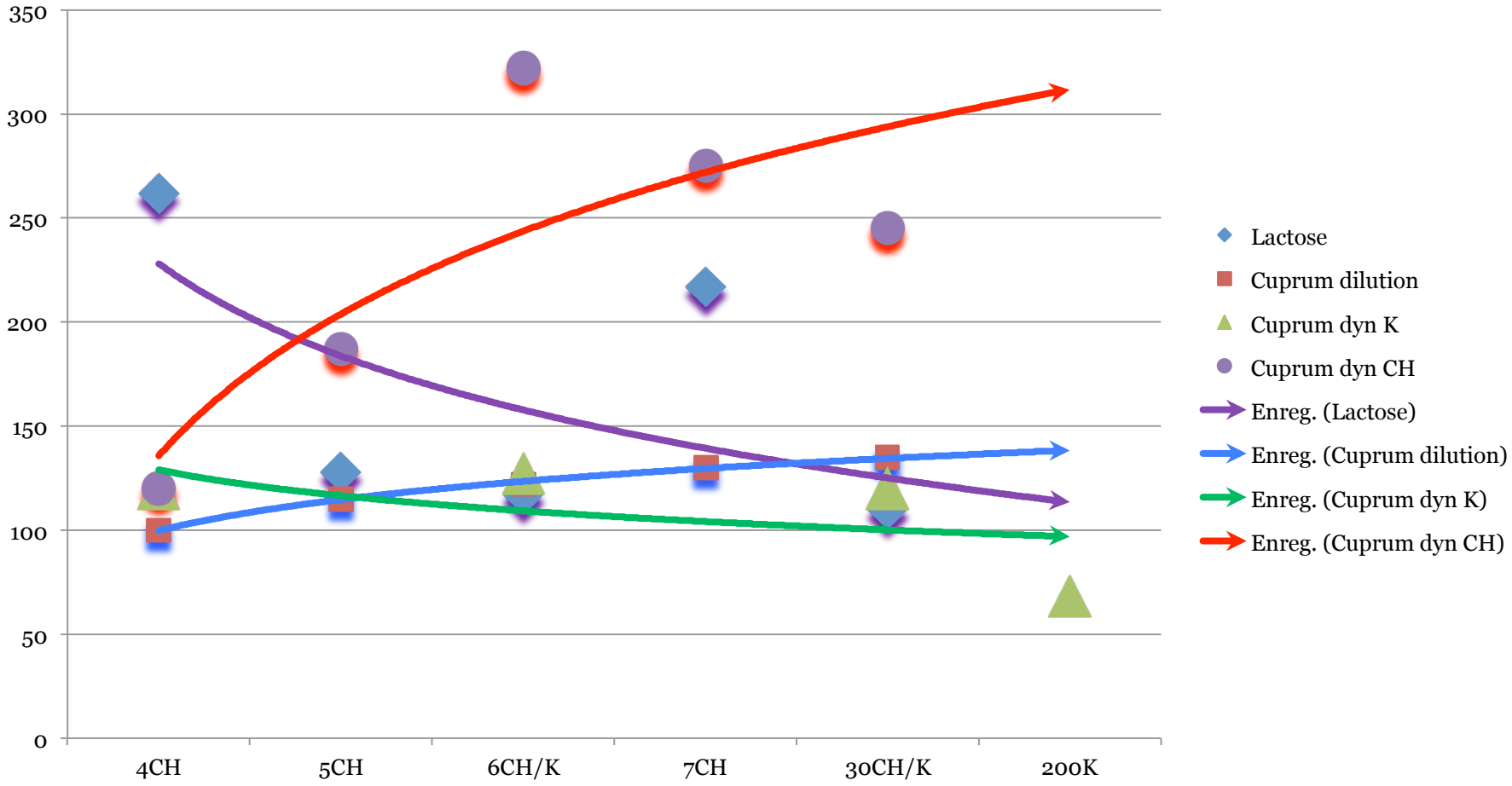


FTLA Concentration / Size graph for Experiment:
cuprum 200K 2015-11-17 13-30-52



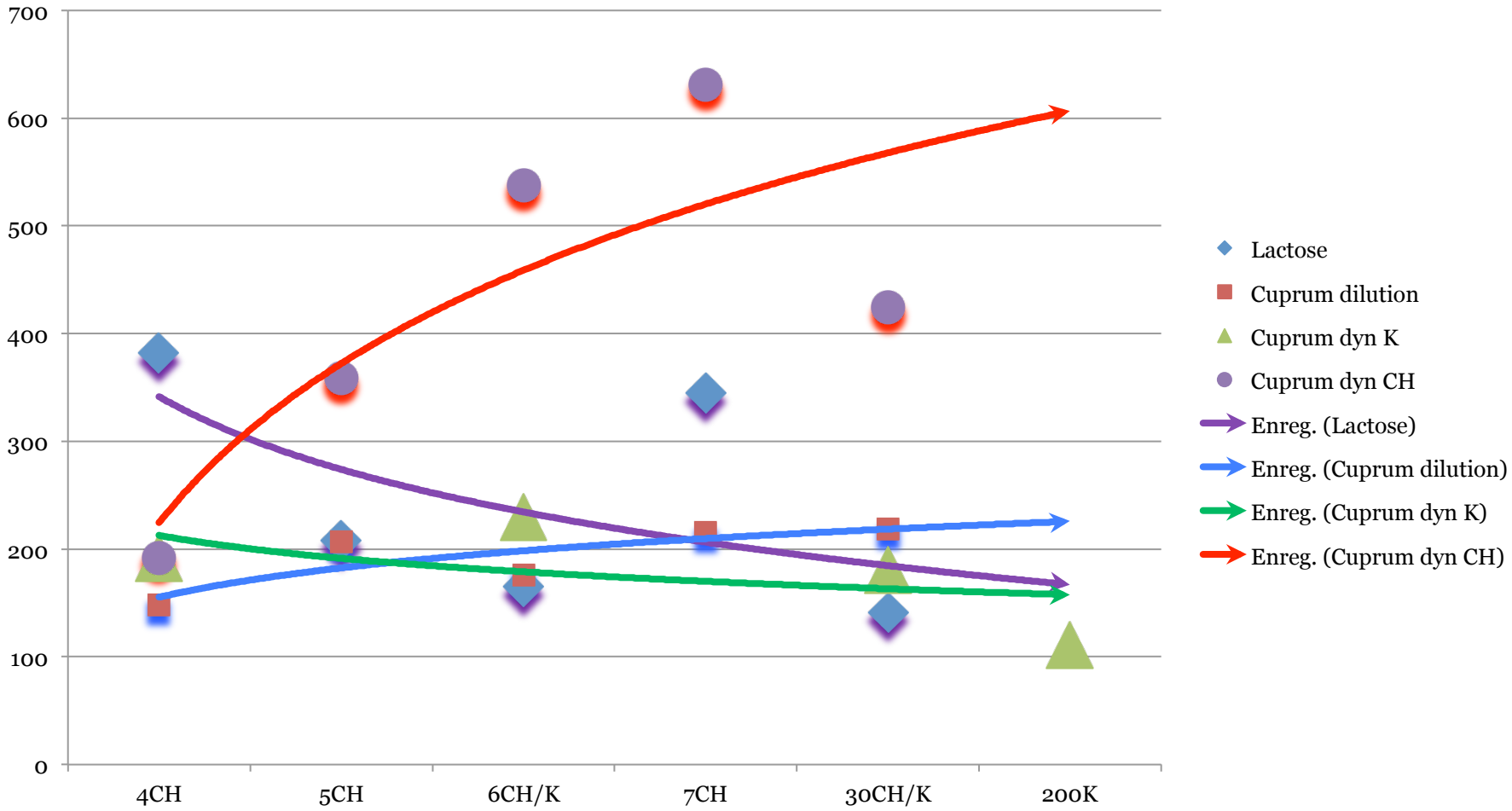
Averaged FTLA Concentration / Size for Experiment:
cuprum 200K 2015-11-17 13-30-52
Error bars indicate + / -1 standard error of the mean

Mean particules sizes in nanometers
(Cuprum metallicum and controls).



Particules sizes distribution (D90) in nanometers.

(Cuprum metallicum)



NTA : Nanoparticle Tracking Analysis

- Conclusions.
- The presence of particles even in highest dynamisation stay in a relatively stable concentration.
- **The particles sizes evolution for potentised Cuprum metallicum can clearly be differentiated from the two control groups.** The sizes and the dispersion of the particles sizes is growing only in CH potentized Cuprum.

SEM/EDX
Cuprum metallicum

SEM/EDX

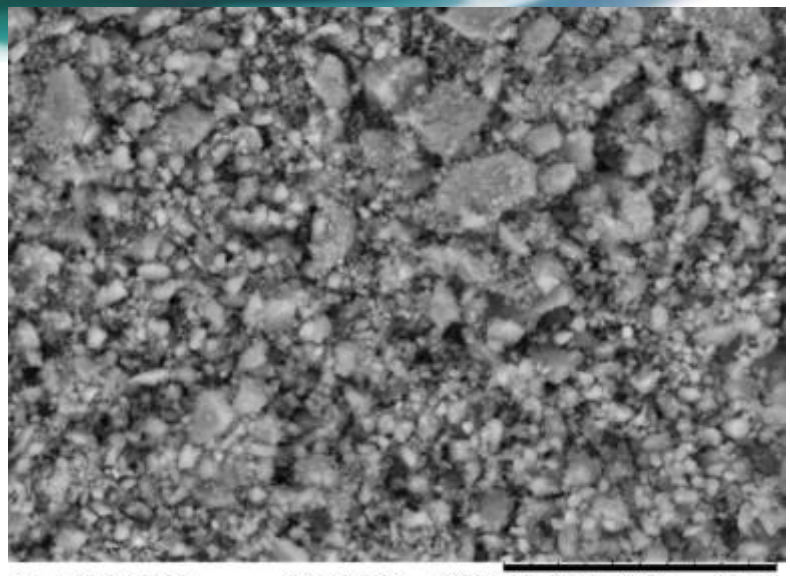
- Cuprum metallicum.

SEM/EDX = Scanning Electron Microscopy with X-ray microanalysis.

Starting from 400cc (20 x 20cc 4CH samples), lyophilized (concentrated) we are able to identify these particles. 200cc of 200K and 30CH, contains also particles !

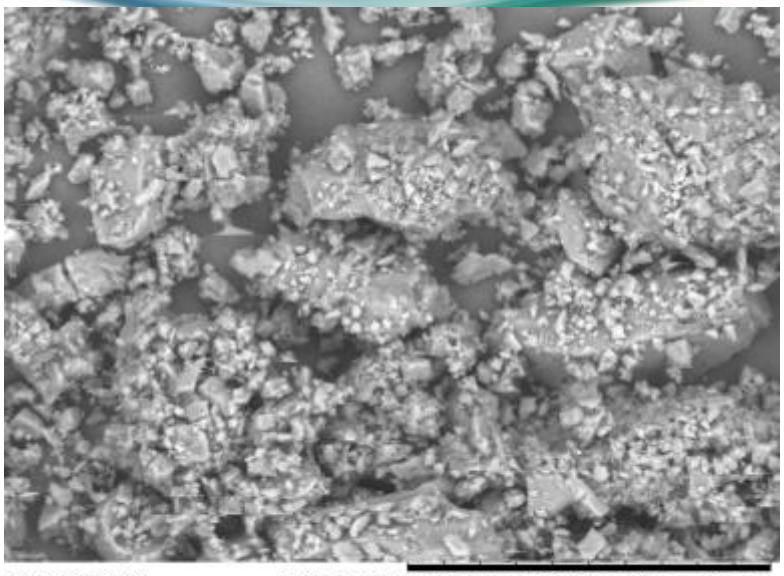
Quantities on obtained dry lyophilized material

	Uncertainty/g*	Stock /g	Lactose/g	Real dry material/g
Copper		999.990µg	0	
Cupr. met. 1C	+/- $3x10^{-9}$	10.000µg	990.000µg	
Cupr. met. 2C	+/- $3x10^{-9}$	+/-100µg	+/-999.900µg	
Cupr. met. 3C	+/- $3x10^{-9}$	+/-1µg	+/-999.999µg	
Cupr. met. 4C	+/- $3x10^{-9}$	In theory +/-0,01µg	+/-9.999,99µg	**9.500,0 µg**
Cupr. met. 30C	+/- $3x10^{-9}$	In theory +/-10^{-54}µg	+/-10^{-48}µg	**1,0 µg**
Cupr. met. 200K	+/- $3x10^{-9}$	In theory +/-10^{-396}µg	+/-10^{-388}µg	**2,5 µg**
Cupr. met. Diluted 10^{-60}	+/- $3x10^{-9}$	In theory +/-10^{-54}µg	+/-10^{-48}µg	**3,0 µg**
Cupr. met. 30C PET	+/- $3x10^{-9}$	In theory +/-10^{-54}µg	+/-10^{-48}µg	**1,5 µg**
Aqua pura 30C	+/- $3x10^{-9}$	In theory 0	0	**2,0 µg**
Arg. met. 30C	+/- $3x10^{-9}$	In theory +/-10^{-54}µg	+/-10^{-48}µg	**10,0 µg**
Arg. met. 200K	+/- $3x10^{-9}$	In theory +/-10^{-396}µg	+/-10^{-388}µg	**7,0 µg**
Arg. met. 10^{-60}	+/- $3x10^{-9}$	In theory +/-10^{-54}µg	+/-10^{-48}µg	**20,0 µg**
Silicea 30C	+/- $3x10^{-9}$	In theory +/-10^{-54}µg	+/-10^{-48}µg	**12,0 µg**
Silicea 200K	+/- $3x10^{-9}$	In theory +/-10^{-396}µg	+/-10^{-388}µg	**8,0 µg**
Silicea 10^{-60}	+/- $3x10^{-9}$	In theory +/-10^{-54}µg	+/-10^{-48}µg	**19,0 µg**
Kali.mur. 30C	+/- $3x10^{-9}$	In theory +/-10^{-54}µg	0	**17,0 µg**
Gelsemium 30C	+/- $3x10^{-9}$	In theory +/-10^{-54}µg	0	**36,0 µg**



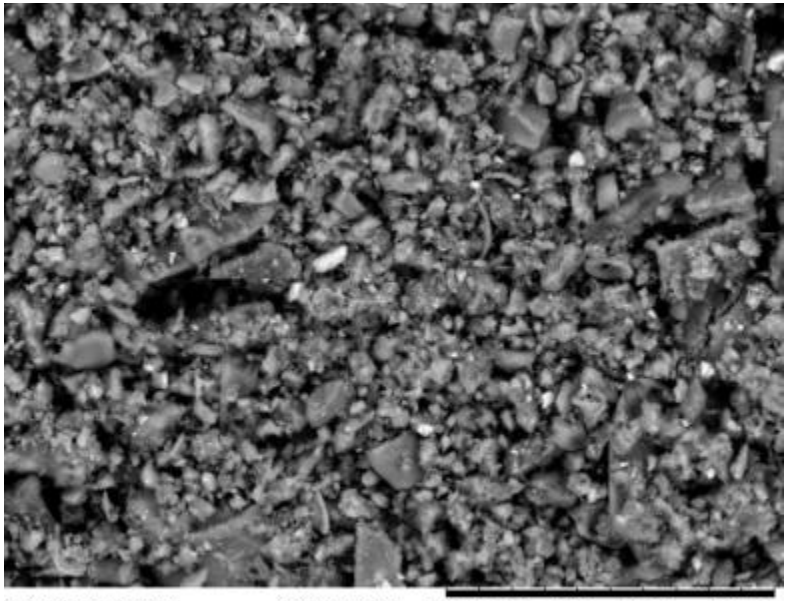
Aqua 30CH 0000 2016/04/26 12:28 HM D8.0 x2.5k 30 µm

SYSMEX-Hitachi TM3030PLUS



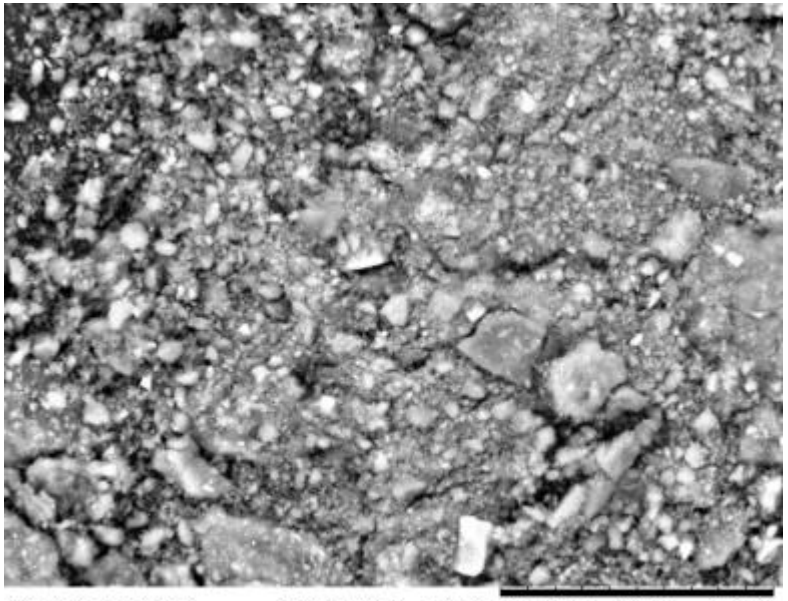
CH4 V2 0000 2016/04/26 13:30 HM D7.9 x1.0k 100 µm

SYSMEX-Hitachi TM3030PLUS



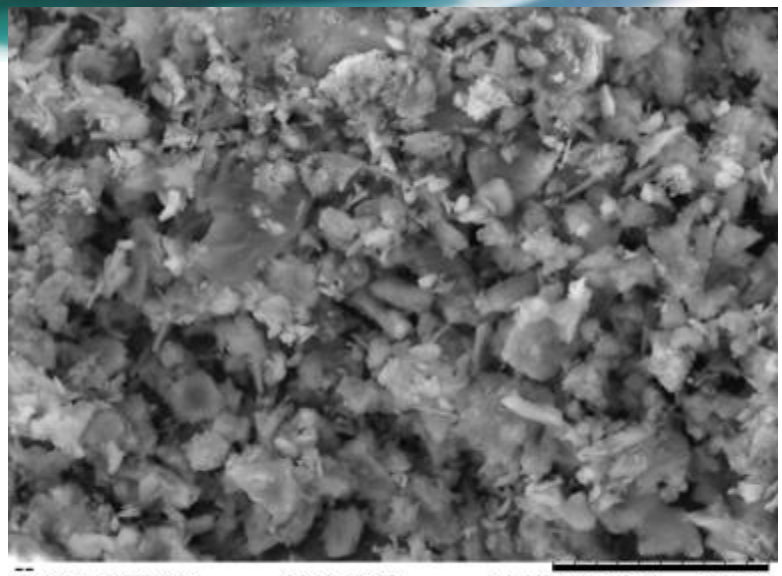
CUPR 30C 0000 2016/04/26 12:13 HM D8.0 x1.8k 50 µm

Hitachi TM3030PLUS Qrum30C



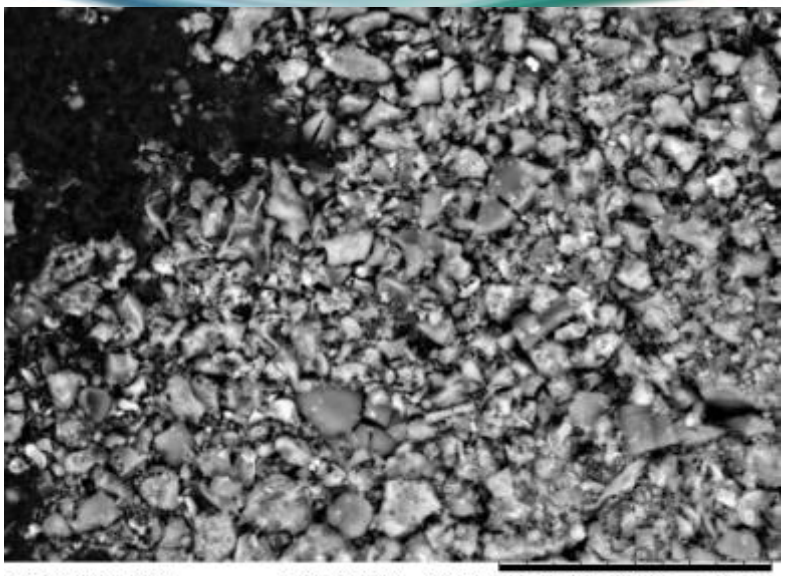
CUPR 200K 0000 2016/04/26 12:01 HM D8.1 x2.5k 30 µm

Hitachi TM3030PLUS Qrum 200K



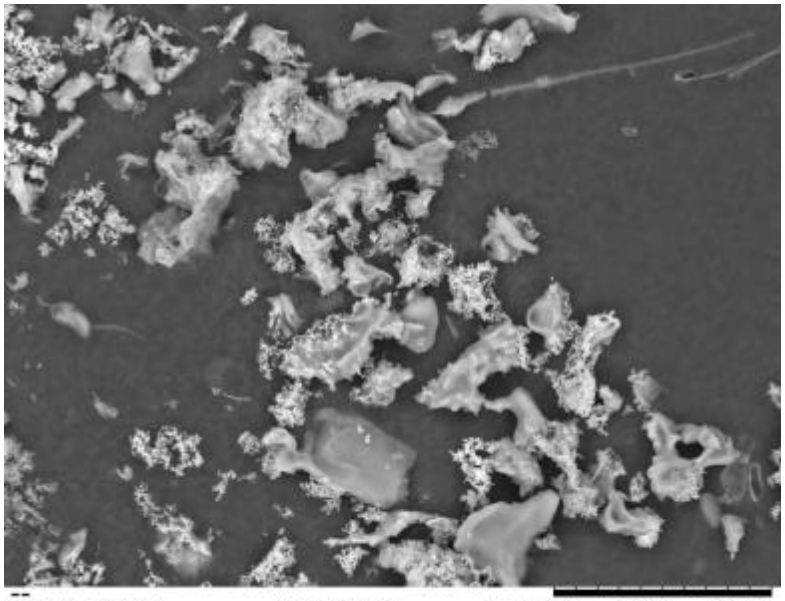
Cu30CH PET0001 2016/12/28 NL UD8.0 x2.0k 30 µm

SYSMEX-Hitachi TM3030PLUS



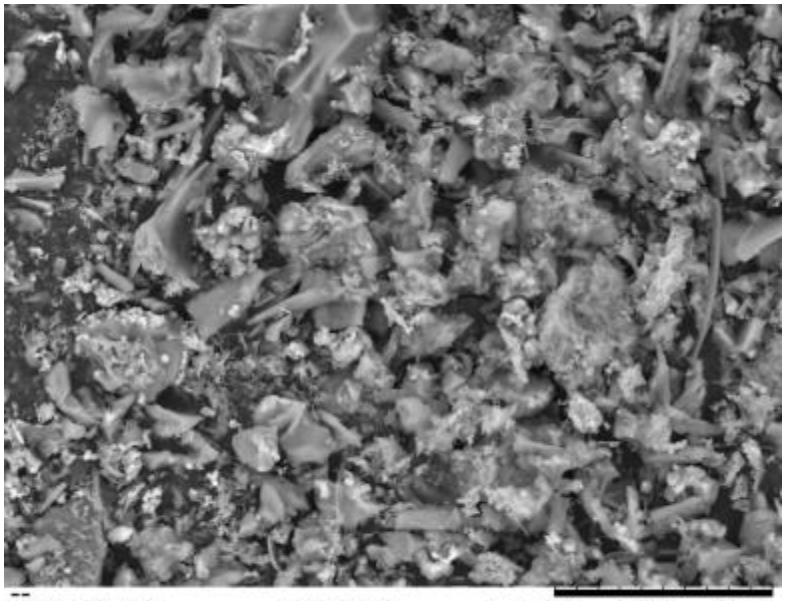
CUPR 60 0000 2016/04/26 11:43 HM D8.0 x2.5k 30 µm

Hitachi TM3030PLUS Qrum 10 -60



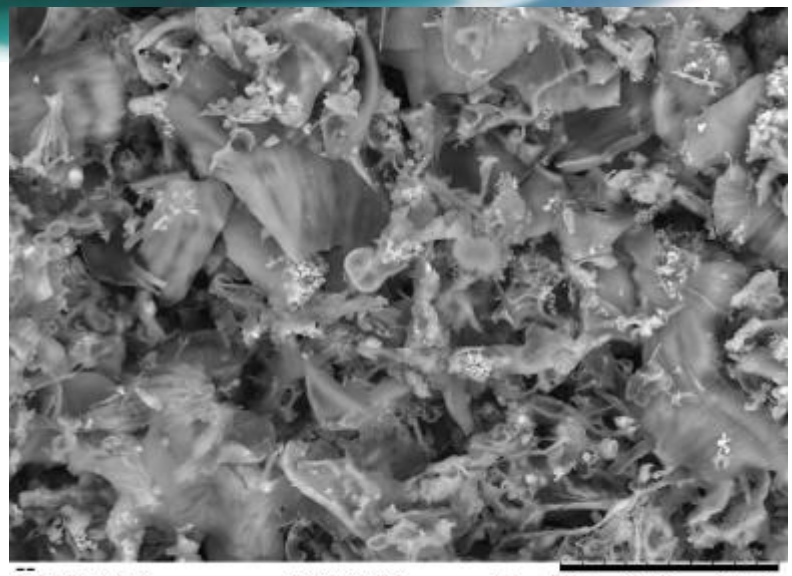
AM30CH 0000 2016/12/28 HM D8.1 x2.0k 30 µm

SYSMEX-Hitachi TM3030PLUS



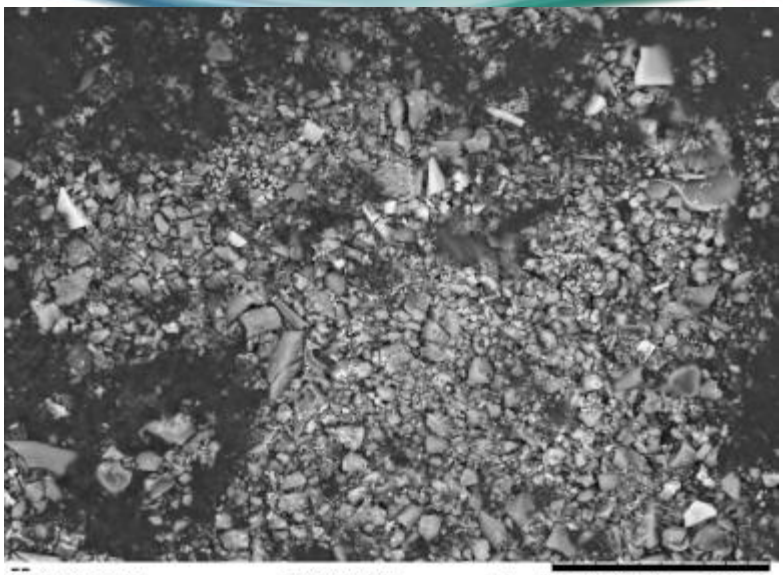
AM200K 0000 2016/12/28 HM D8.1 x2.0k 30 µm

SYSMEX-Hitachi TM3030PLUS



Si30CH 0000 2016/12/28 HL D8.1 x2.0k 30 µm

SYSMEX-Hitachi TM3030PLUS

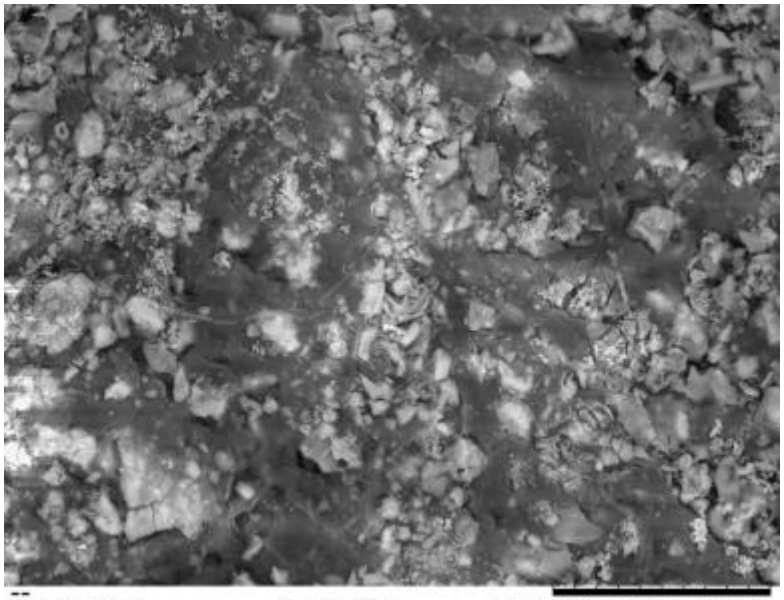


Si200K 0000 2016/12/28 HL D8.1 x2.0k 30 µm

SYSMEX-Hitachi TM3030PLUS

Si10-60 0000 2016/12/28 HL D8.0 x2.0k 30 µm

SYSMEX-Hitachi TM3030PLUS



K30CH 0000 2016/12/28 HM D8.0 x2.0k 30 µm

SYSMEX-Hitachi TM3030PLUS

SEM

- Cuprum metallicum.

Conclusions: Clearly it is possible, using this methodology, to differentiate visually cuprum metallicum in several potentisations from controls or other remedies.

CH and K preparations generate specific images.

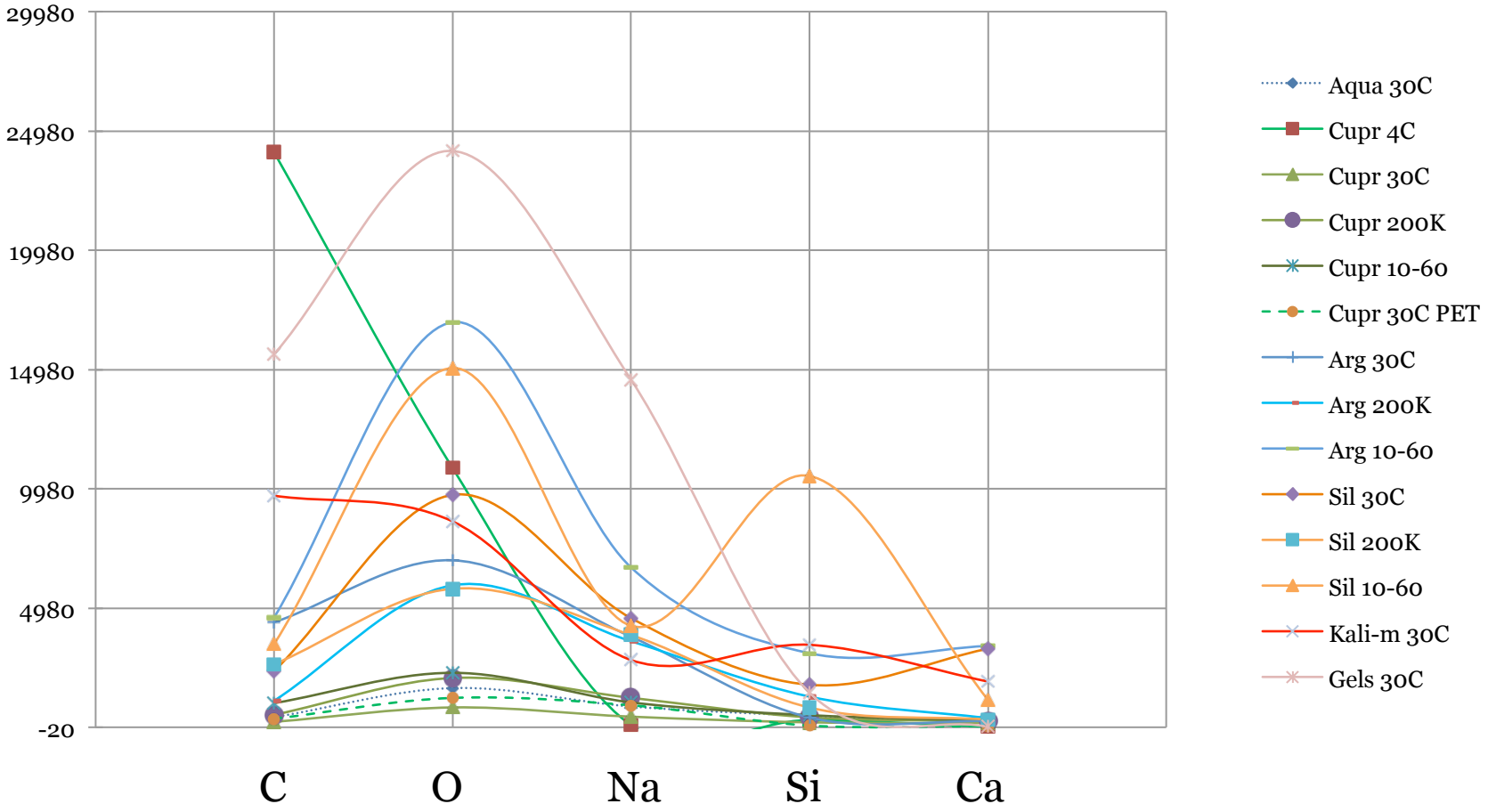
EDX

- Cuprum metallicum.

EDX =

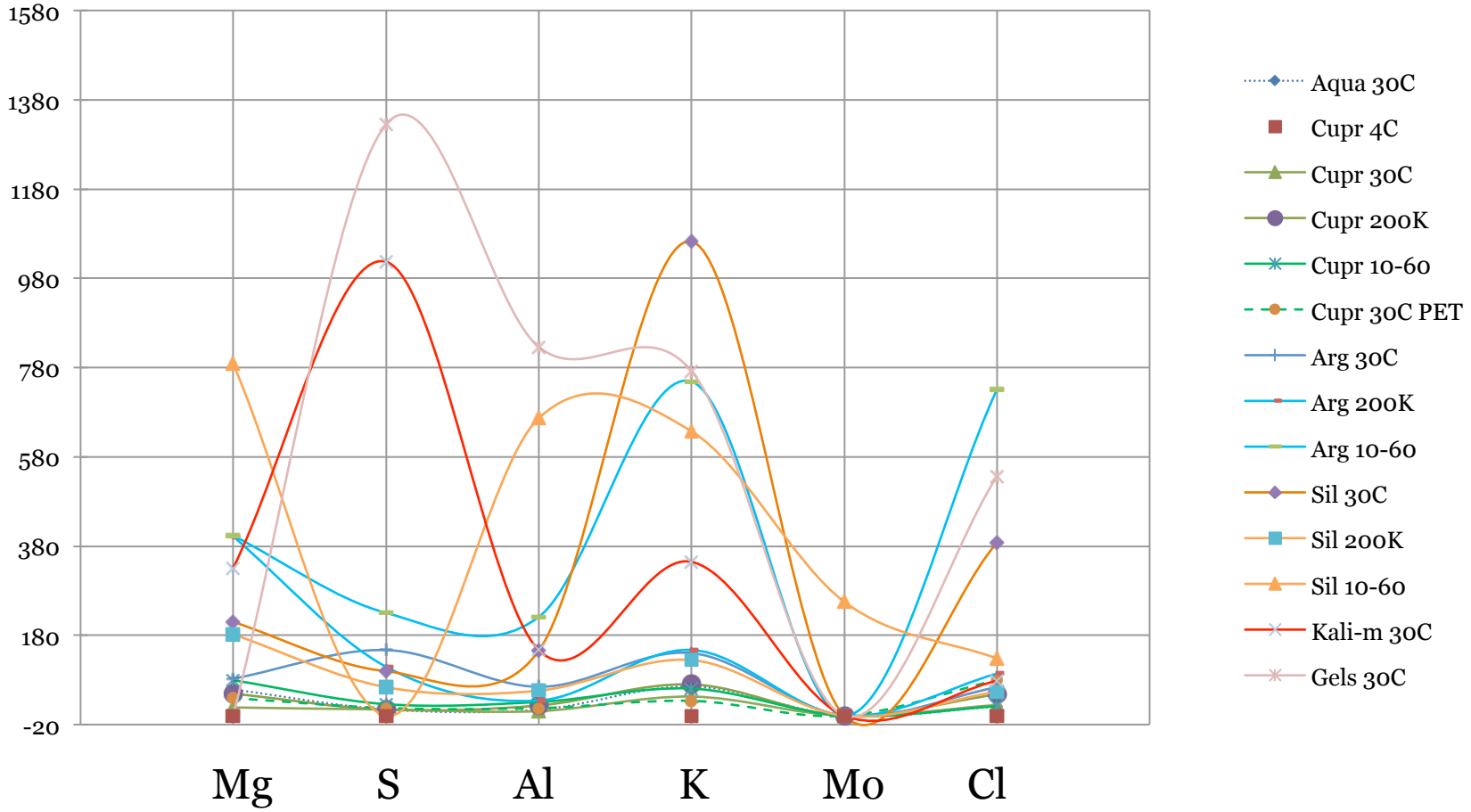
Electron Microscopy with X-ray microanalysis is allowing the chemical analyze of the observed material.

Identified chemistry in dilutions/potentizations (atom% * atomic mass * µg quantity) for the 5 most concentrated atoms in the different preparations.



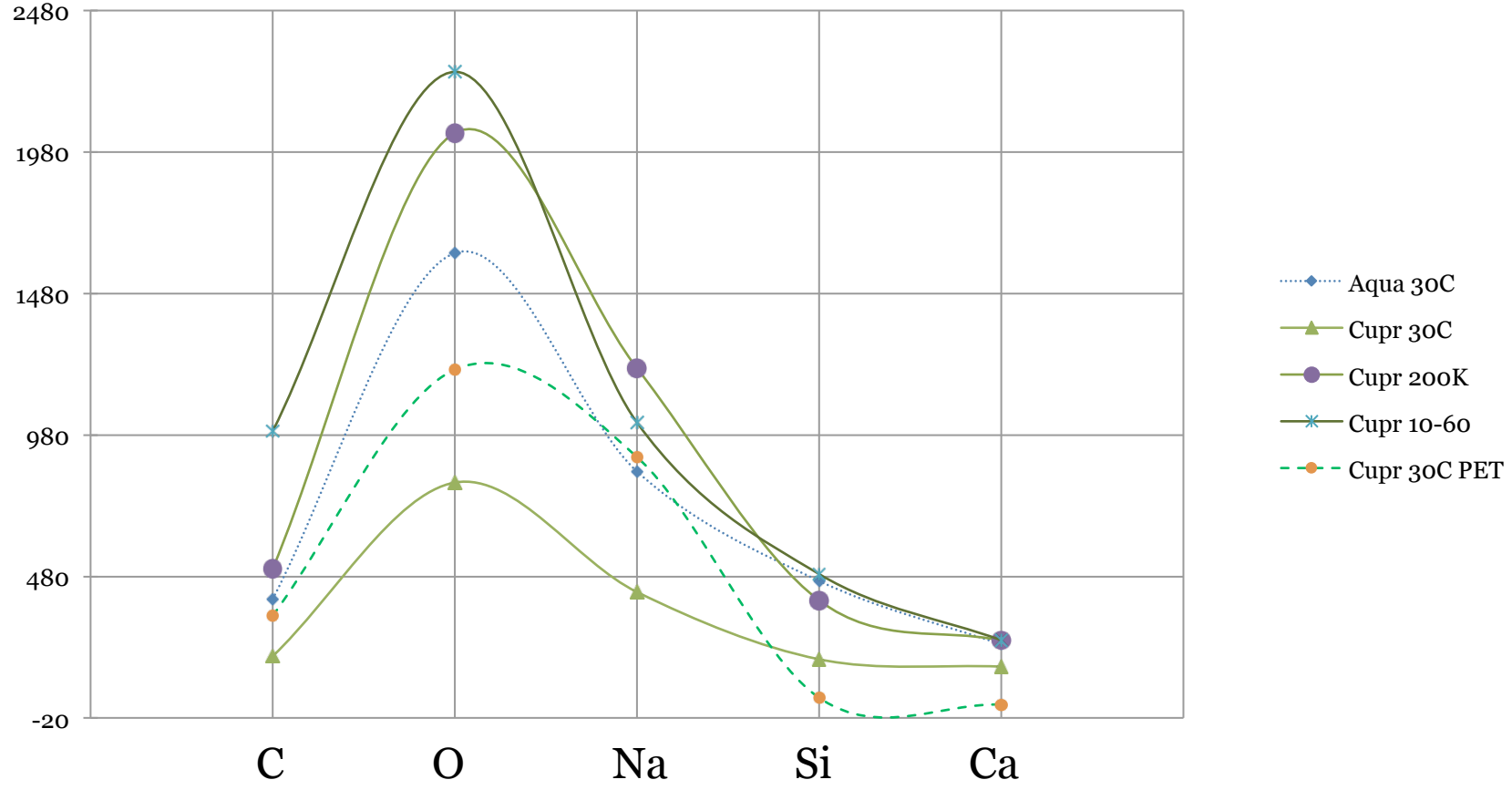
There is a difference in chemistry between the different samples. The proportion of Carbon, Oxygen, Sodium are always high, Silicium and Calcium are also good discriminant factors. Cuprum 4C is almost pure sugar ($C_{11}H_{22}O_{11}$) and real values are about 9000 times higher than presented here. At this scale, the different dilutions/potentizations of copper are not easily discriminated from each other but it is easy to discriminate from other metals or salt or plant. For silver and silica the differences between dilutions/potentizations are clearly expressed.

Identified chemistry in dilutions/potentizations (atom% * atomic mass * µg quantity) for 6 lower concentrated atoms in the different preparations.



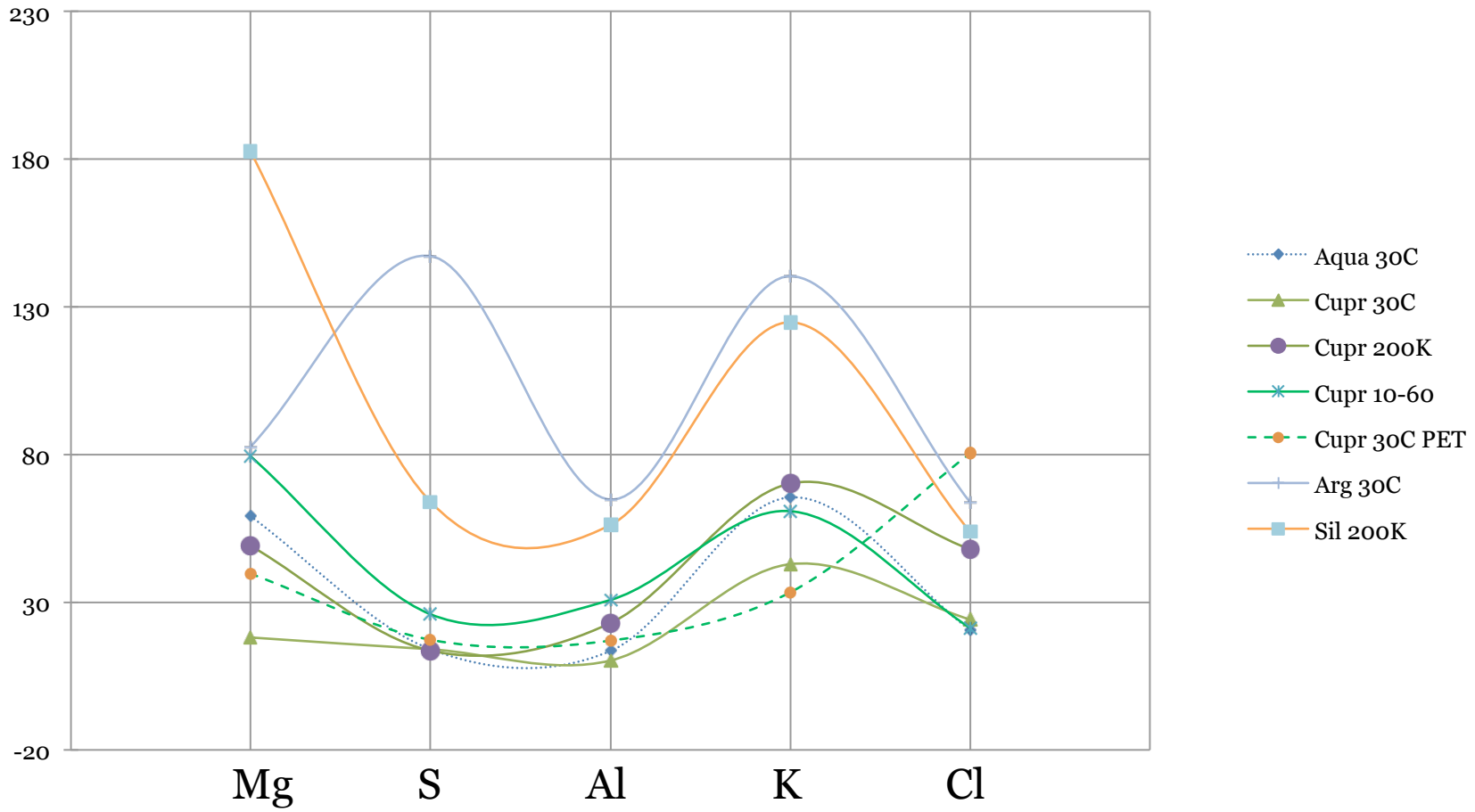
Also for lower concentrated atoms, there is a difference in chemistry between the different samples and are good discriminant factors. At this scale, Cuprum dilutions/potentizations chemistry is not as easy to discriminate between each other for these atoms but easy to discriminate from other preparations.

Identified chemistry in dilutions/potentizations (atom% * atomic mass * µg quantity) for 5 most concentrated atoms in the copper preparations and water control (comparable scale).



There is a difference in chemistry between the different samples. The proportion of Carbon, Oxygen, Sodium are always high, even if Silicium and Calcium are not as high concentrated, they are all good discriminant factors. Cuprum 4C is almost pure sugar ($C_{11}H_{22}O_{11}$) and real values are about 9000 times higher and therefore not presented here.

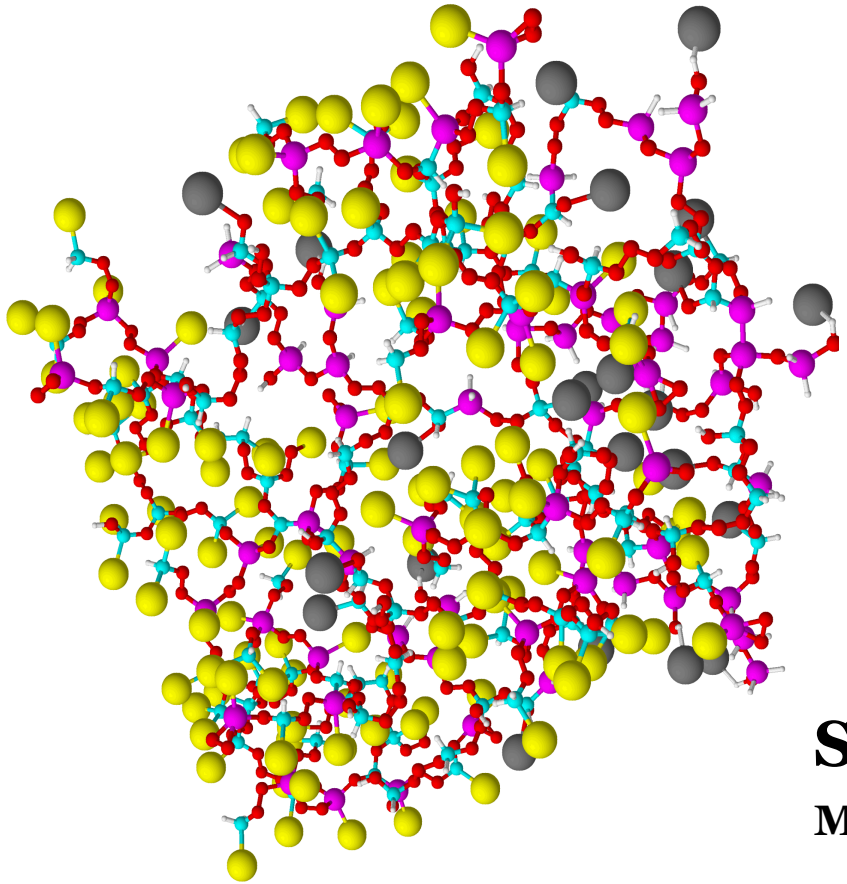
Identified chemistry in dilutions/potentizations (atom% * atomic mass * µg quantity) for 6 lower concentrated atoms in the preparations expressed at the low comparable scale.



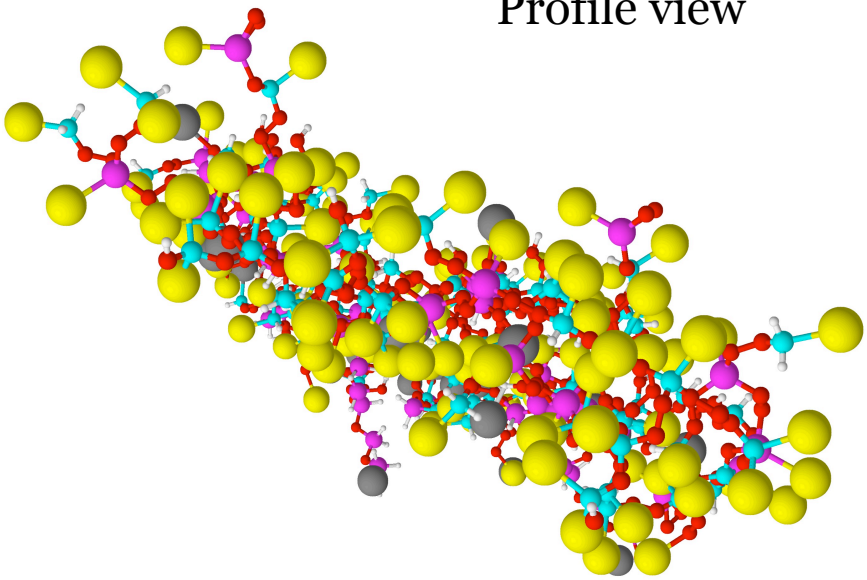
Also for lower concentrated atoms, there is a difference in chemistry between the different samples and are good discriminant factors. At this scale, Cuprum dilutions/potentizations chemistry is not as easy to discriminate between each other for these atoms but easy to discriminate from other preparations.

Possible modelisation of these particles (100 smaller than in reality)

C112 H164 Ca24 Na 128 O352 Si64: Lmin 1,4nm; Lmax 1,4nm; Thickness 0,6nm.
Yellow = Na; Red = O; Magenta = Si; Blue = C; **Grey = Ca**; White = H.



Profile view



Skeleton=SiO_2+C=thin plates

More compact model if Si/C decreases.

Conclusions SEM/EDX (1)

- For Cuprum 4C the expected quantity of dry material was almost completely collected. In the highest dilutions/potentizations theoretically unforeseen dry material was collected.
- There are indeed big differences in the amount of collected material depending on the performed dilution/potentization process but also according to the different soluble or insoluble stocks used. In the soluble plant extract (Gelsemium) there is the biggest quantity of material (36 times more than in copper for the same potentization 30C).
- Compared to other metals, copper is the stock that gives the smallest amount of residual dry material.

Conclusions SEM/EDX (2)

- The presence of this material demonstrate that the used step by step process (dynamized or not) is not a simple dilution process. For all stocks, after a simple dilution, there are always significant larger quantities of dry material collected in comparison with the potentized samples.
- The lyophilized dry material obtained observed by SEM/EDS, allowing a detailed view of the nature of the obtained lyophilized dry material, produce remarkable images. If we compare the nature of the material, it is possible to discriminate the shapes not only between a metal, a salt and a plant but also between different metals and between different dilutions/potentizations process

Conclusions SEM/EDX (3)

- The chemistry of the materials, determined by EDS, shows that this material is not composed of all original molecular compounds of the MT. We did not find copper or silver in the samples; nevertheless, there is a specific composition for each of the samples, stocks and/or dilution/dynamizations.
- The proportion of the different atoms results in a specific chemical profile. Because of the absence of any particles in the used deionized pure water (NTA), the presence of these atoms can only be justified by an interaction between the original stock, the used glass containers and the deionized water.

Conclusions SEM/EDX (4)

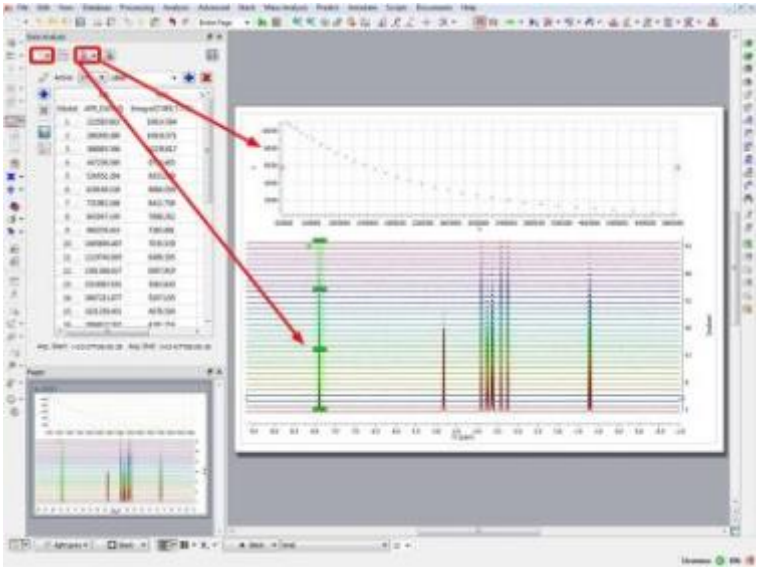
- The specificities between different samples force us to also recognize an impact of the original stock all along the dilution or potentization process. A simple dilution is not a potentization and a difference exists between the C, K potentization processes and controls.
- When using PET containers for the potentization of Aqua pura 30K no significant particles can be observed but in the potentized Cuprum metallicum 30K in PET container, specific particles are observed. This fact confirms the role of the stock during the potentization process. The percentage of silica is the highest in the Silicium 30C.

A comprehensive approach

- ✓ Nano particles search
- ✓ **Solvent (water) behaviour**
- ✓ Electrons behaviour

NMR

- NMR: Prof. Luce Vander Elst.
- Nuclear Magnetic Resonance Spectroscopy. Calculation of Relaxation Times 1, 2, for the full range of dynamization up to 30CH.
- Aim: Collection of all values for Cuprum and Gelsemium.



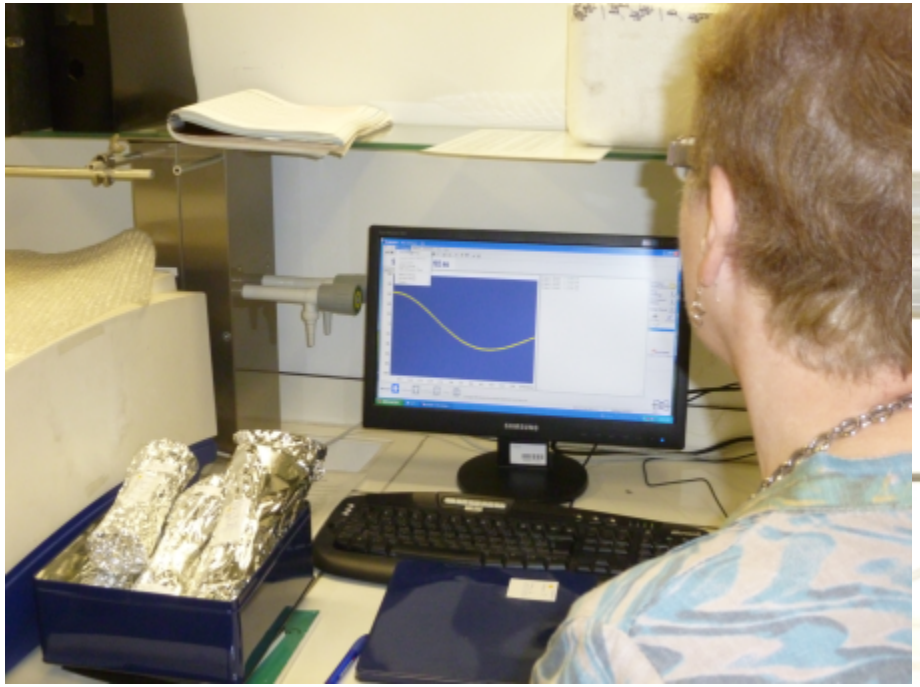
NMR

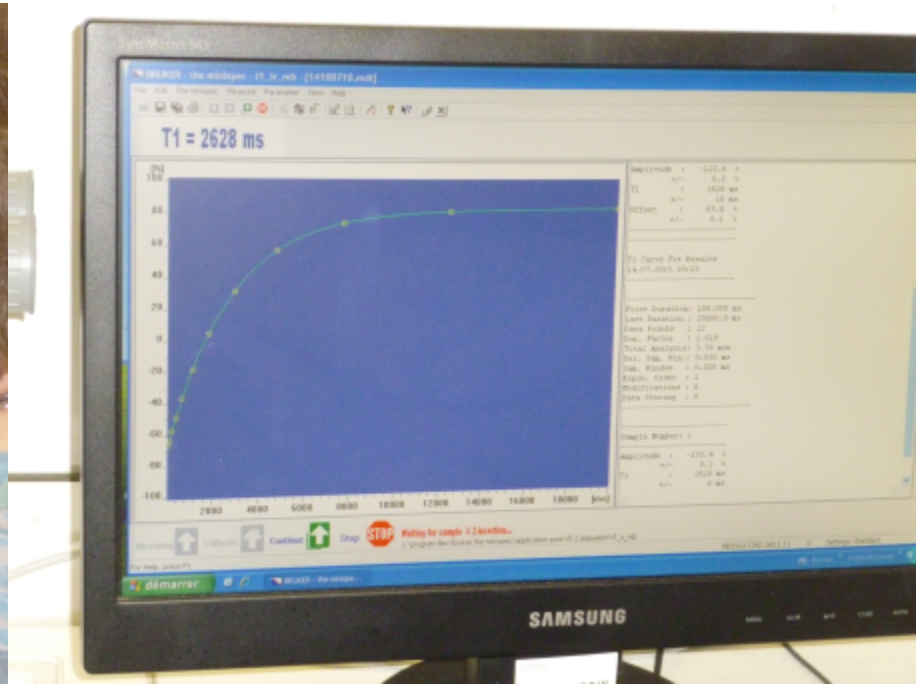
- **NMR Relaxation times are correlated to the water behaviour.**
- **Aim: statistical discriminant analyse of NMR signals from different homeopathic remedies and different dynamizations versus 3 controls : pure water, dynamized lactose (for triturated stocks), dynamized water and simply diluted stocks.**

NMR

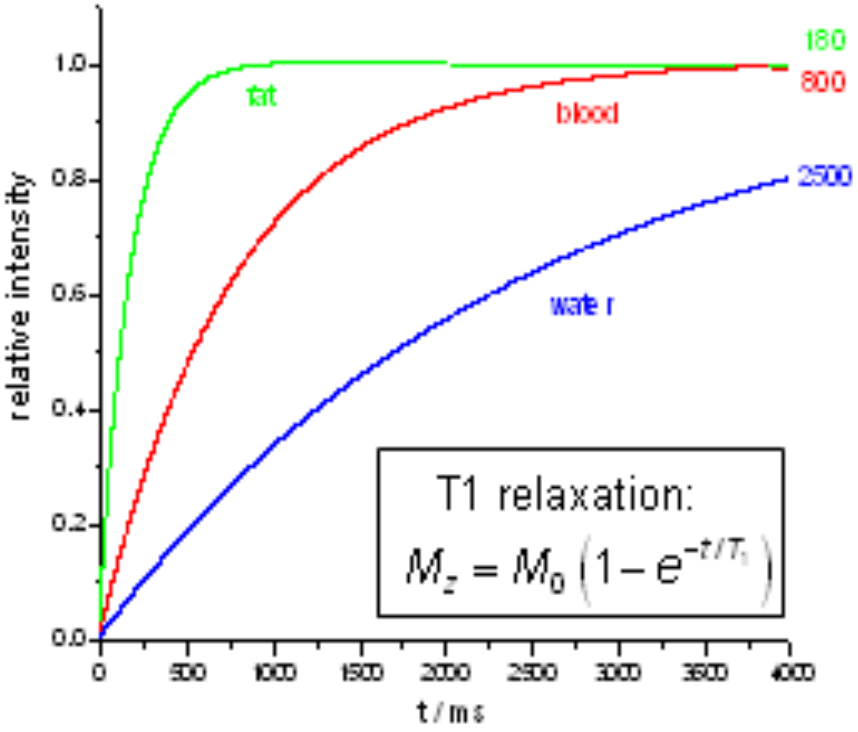
NMR

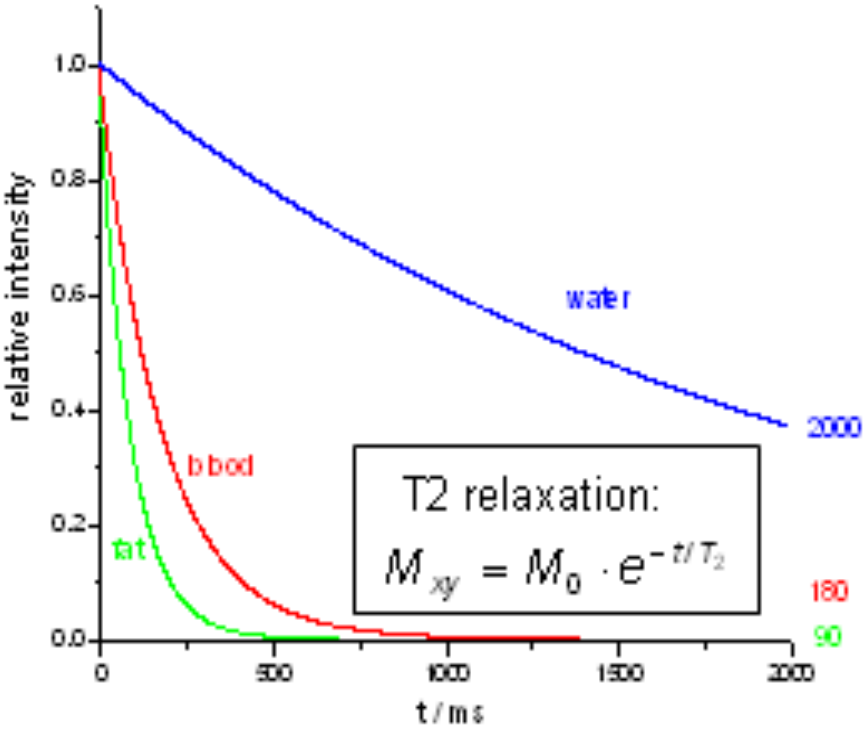
Daily calibration of measurement tool.

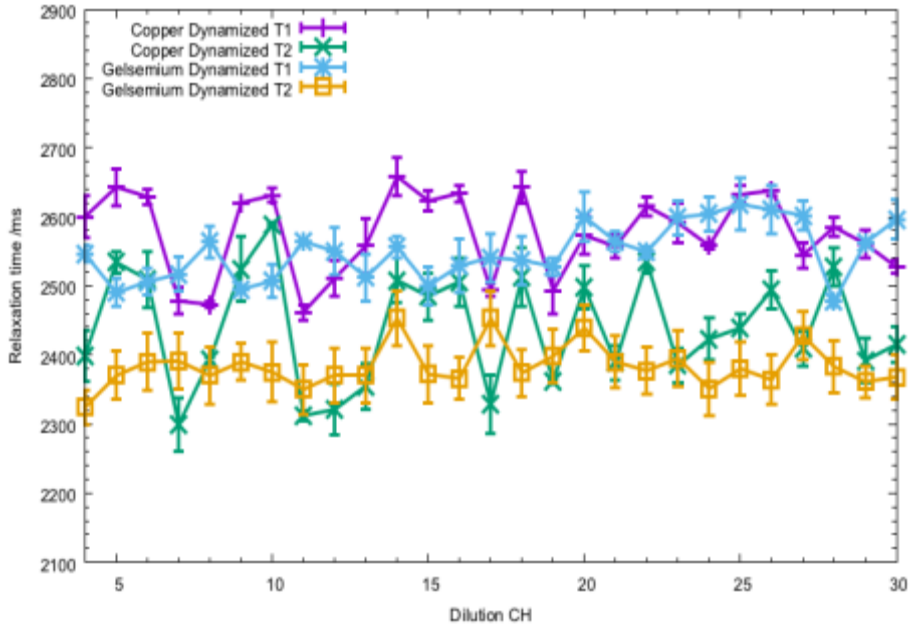


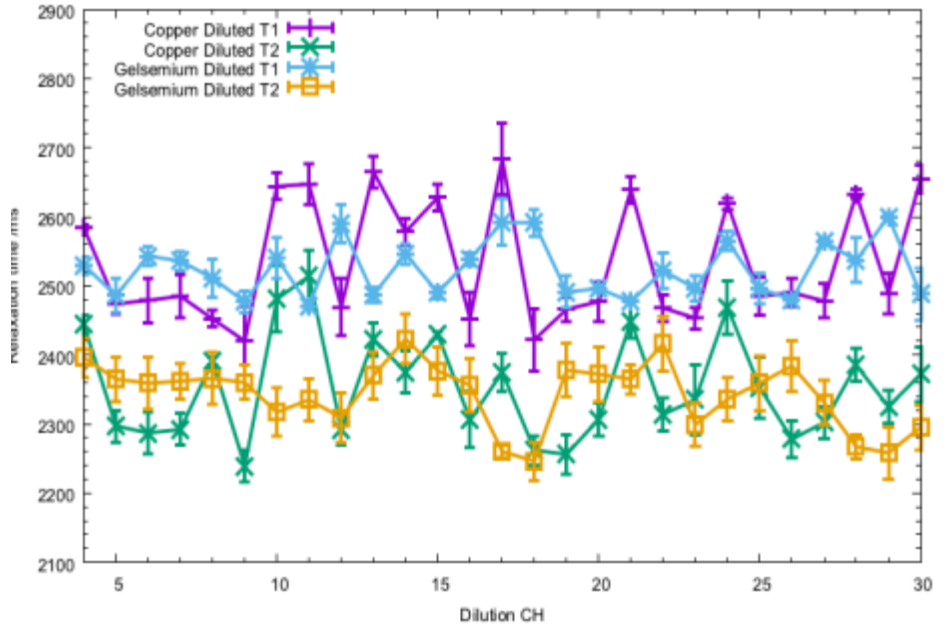


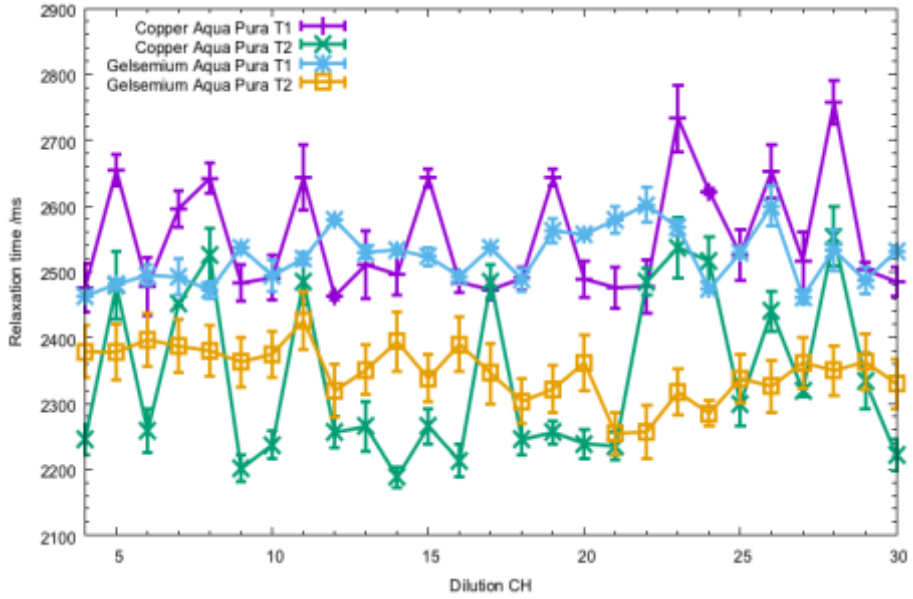
NMR

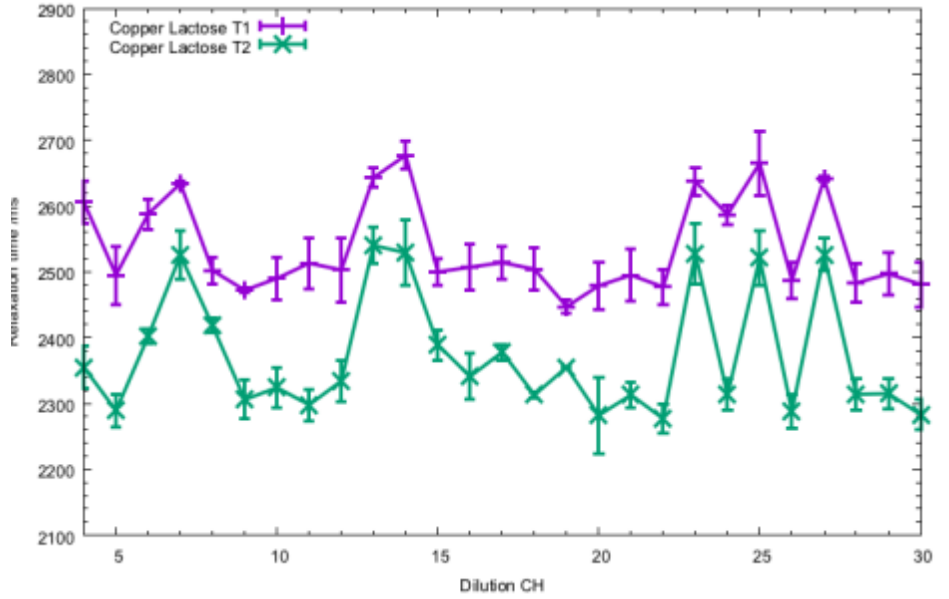

180
800
2500
fat
blood
water
relative intensity
t / ms
T1 relaxation:
$M_z = M_0\left(1 - e^{-t/T_1}\right)$


water
2000
blood
fat
180
90
relative intensity
t / ms
T2 relaxation:
$M_{xy} = M_0 \cdot e^{-t/T_2}$


Copper Dynamized T1
Copper Dynamized T2
Gelsemium Dynamized T1
Gelsemium Dynamized T2
Relaxation time /ms
Dilution CH


Copper Diluted T1
Copper Diluted T2
Gelsemium Diluted T1
Gelsemium Diluted T2
Dilution CH


Copper Aqua Pura T1
Copper Aqua Pura T2
Gelsemium Aqua Pura T1
Gelsemium Aqua Pura T2
Relaxation time /ms
Dilution CH


Copper Lactose T1
Copper Lactose T2
Dilution CH

NMR

After these measurements a question arise : **« Are these values specific and as such allowing to discriminate the medicines between each other or are they aleatory values? »**. To answer this question, statistical analyses are needed. During the session after the break the response to this question will be given.

A comprehensive approach

✓ Nano particles search

✓ Solvent (water) behaviour

✓ **Electrons behaviour**

EPA

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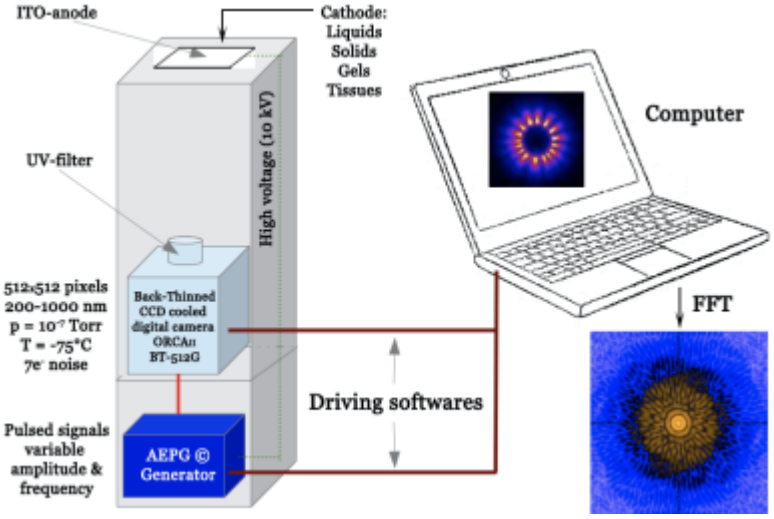
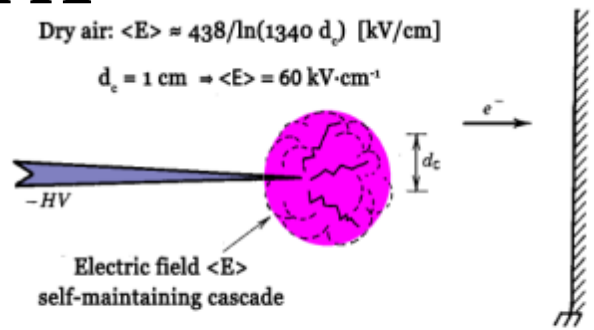
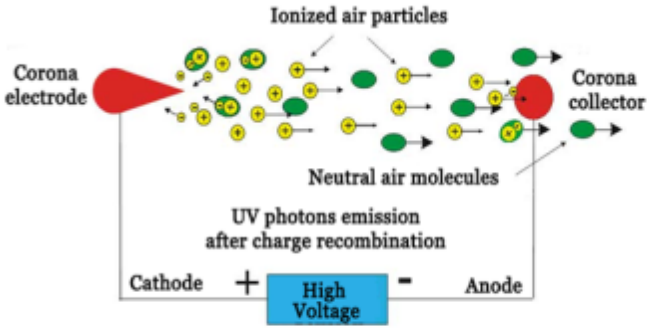
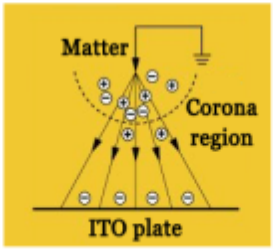
- Electro Photonic Analyse of any “material”
- Aim: precise discrimination of each remedy but also of the dynamizations of a same stock. Allowing to test the different methods and number of dynamizations; top, midden, bottom pipetting.
- Very sensitive and specific analyse.
- One drop or one pilule is enough!

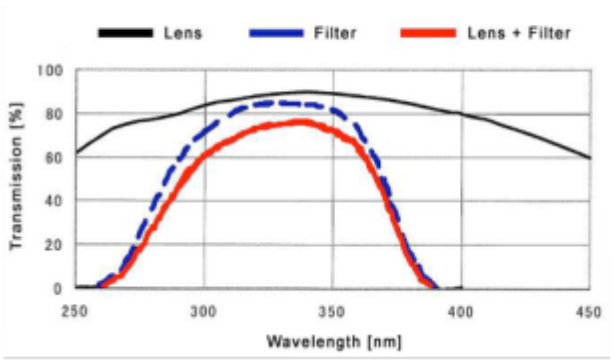


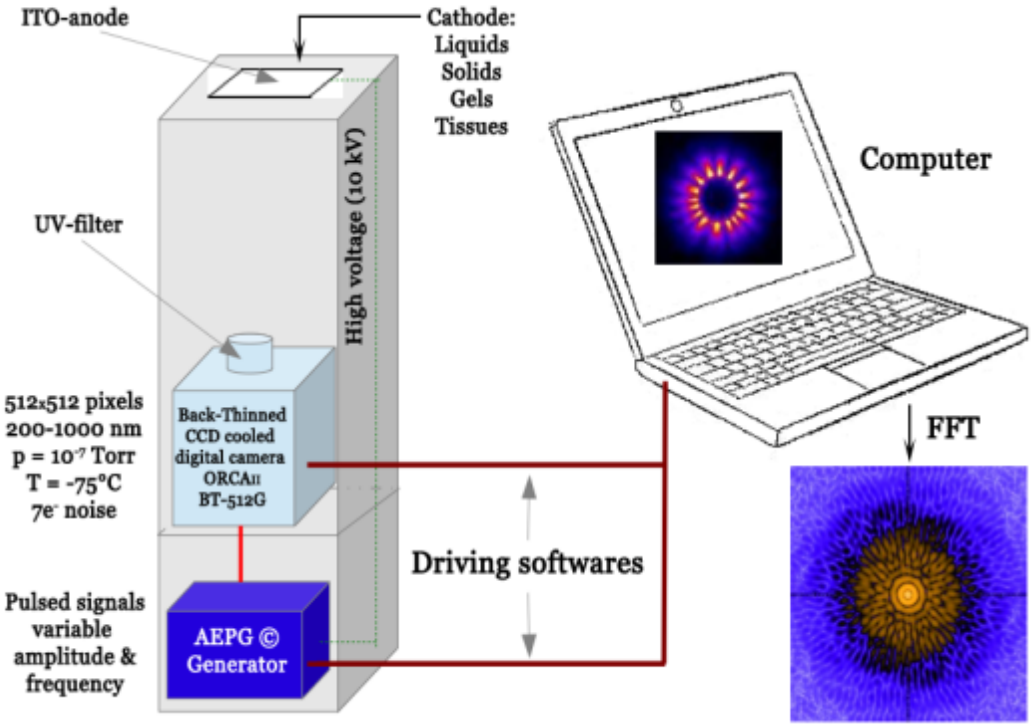
EPA


Dry air: <E> ≈ 438/ln(1340 d_c) [kV/cm]
d_c = 1 cm ⇒ <E> = 60 kV·cm⁻¹
e⁻
d_c
−HV
Electric field <E>
self-maintaining cascade


Ionized air particles
Corona electrode
Corona collector
Neutral air molecules
UV photons emission after charge recombination
Cathode
+
High Voltage
-
Anode


Matter
Corona region
ITO plate


Lens
Filter
Lens + Filter
Transmission [%]
100
80
60
40
20
0
250
300
350
400
450
Wavelength [nm]


ITO-anode
Cathode:
Liquids
Solids
Gels
Tissues
UV-filter
High voltage (10 kV)
Computer
512x512 pixels
200-1000 nm
p = 10⁻⁷ Torr
T = -75°C
7e⁻ noise
Back-Thinned CCD cooled digital camera ORCAII BT-512G
FFT
Driving softwares
Pulsed signals variable amplitude & frequency
AEPG © Generator

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EPA

- April 2016: 607 images : 3 for 175 liquid samples and 1 for 82 impregnated pilules (size 6) samples including several controls.
- Liquids one drop of 15µl suspended at the top of the pipette tip and in contact with the electrode (10000 Volts, 400 Hz). When electric stimulation stop the emitted light is photographed.
- For globules the electrode is in contact at the top of the pilule (11000 Volts, 120 Hz).

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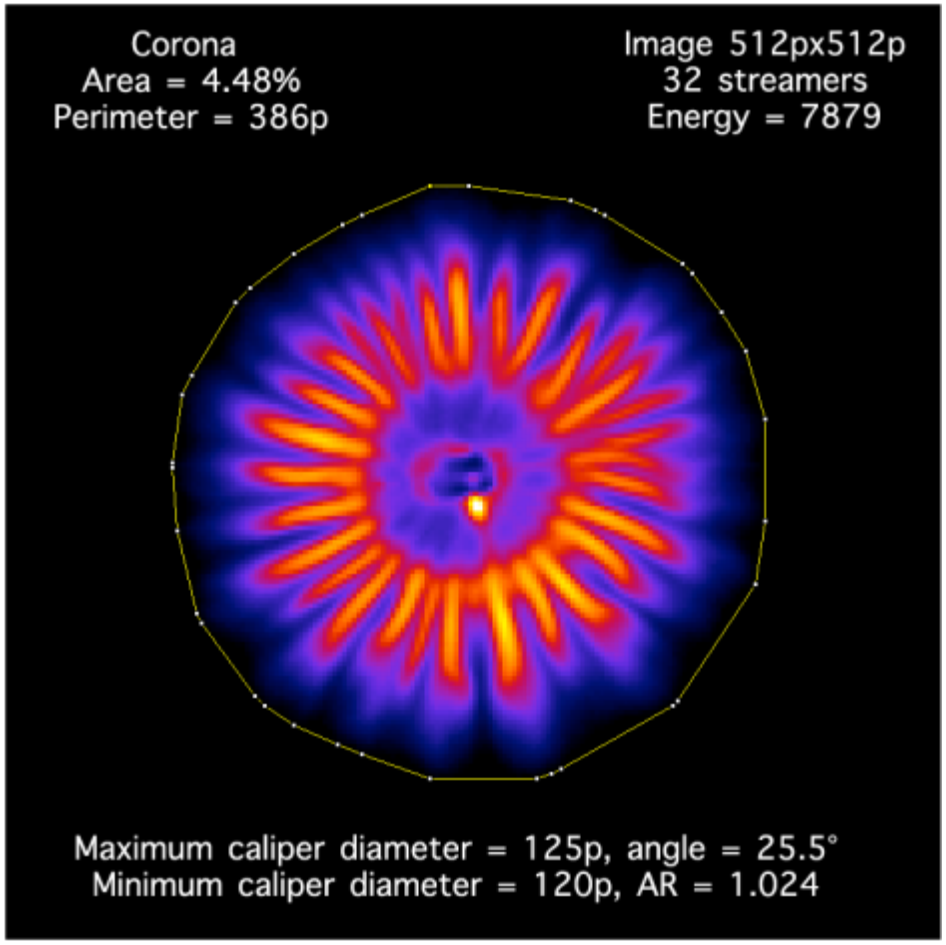
EPA
Cuprum 4CH



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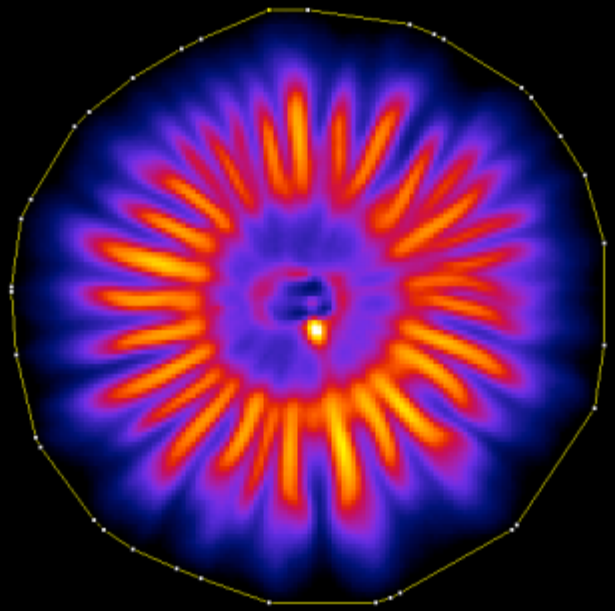
EPA granules
Cuprum 4CH

Corona
Area = 4.48%
Perimeter = 386p

Image 512px512p
32 streamers
Energy = 7879

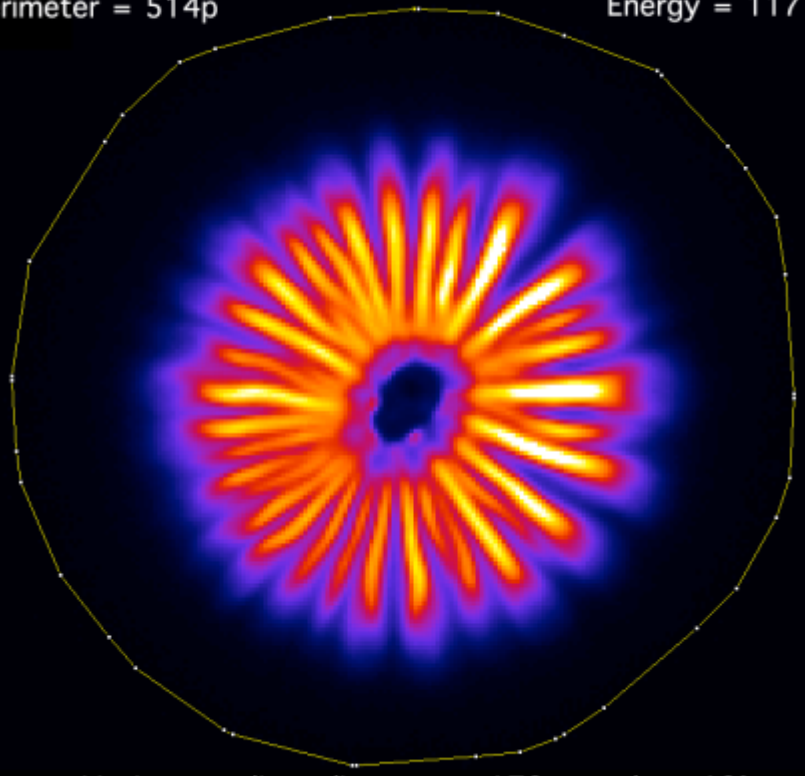


Maximum caliper diameter = 125p, angle = 25.5°
Minimum caliper diameter = 120p, AR = 1.024

Gelsemium 4CH

Corona
Area = 9.20%
Perimeter = 514p

Image 512px512p
32 streamers
Energy = 11716



Maximum caliper diameter = 170p, angle = 19°
Minimum caliper diameter = 170p, AR = 1.047

EPA

After these measurements here also a question arise : **« Are these images and mathematic analyse of them, specific and as such allowing to discriminate the medicines and potentizations between each other or are they hazardous? »**. To answer this question, appropriate mathematical analyses are needed. During the session after the break a response to this question will be given.

EBM
CUPRUM METALLICUM

Léon Scheepers M.D.
Text Michel Van Wassenhoven M.D.

CUPRUM METALLICUM

Possibility

Probability

Confirmation

Corroboration

Verification

Possibility

PHARMACOLOGY:

- The red mineral is described as Cuprum metallicum for homeopathic preparation in the European Pharmacopoeia (PhEur).
- It is a malleable, reddish-brown metallic element with atomic number 29.

- Copper is essential to all living organisms as a trace dietary mineral.
  - key constituent in many enzyme complexes.
  - linked to iron absorption and metabolism, the formation of red blood cells and nerves.
  - found in human liver, muscle and bone.

- Copper deficiency is seldom because only 2 to 5mg, easily obtained from a variety of foods, is sufficient for a proper balance.

- Copper compounds are used as bacteriostatic substances, fungicides and wood preservatives.

Possibility

Symptoms:

- Copper accumulates in Wilson's disease, primary biliary cirrhosis and occasionally in chronic biliary tract obstruction producing fatigue; lack of appetite; abdominal pain; jaundice; oedema in legs, ascites; problems with speech, physical coordination or swallowing; uncontrolled movements or muscles stiffness.

- Ref. European Pharmacopoeia 8.2 7/2014. / Homéopathie et Physiologie. Hodiamont. Ed Similia ISBN 2-7008-0176-8..

Probability

- **Proving**: Hahnemann did the first proving of Cuprum metallicum and mentionned it for the first time in his book “Chronic diseases” (1828). In his “Fragmenta” (1805) the proving of Cuprum vitriolatum (Sulfuricum) was already described. Allen included the first Hahnemannian proving in his Encyclopaedia under A1 (3 provers)

Probality

SYMPTOMS:

Mind:

- immoderate spasmodic laughter in the evening;

Head:

- attacks of vertigo, >looking up with vanishing of vision as though a veil before eyes

Throat to abdomen:

- audible gurgling down the throat when drinking; eating hastily; eructation’s all afternoon.

Probality

Respiration:

- spasmodic attacks of dyspnoea and spasmodic vomiting; rattling in chest, feeling as excessive blood in chest.

Extremities:

- jerk and cramps;

Generals:

epileptiform attacks, trembling and restlessness.

- Ref. Hahnemann. Chronic Diseases.1828. French translation by Schmidt & Kunzli Ed Maisonneuve 1969.

Confirmation

Provings: 133 provers, 1341 symptoms.

Keynotes:

Constitution: Spasms and cramps: symptoms disposed to appear periodically and in groups.

Confirmation

Mind and Physical general:

- Mental and physical exhaustion from over-exertion of mind and loss of sleep;.
- While drinking, the fluid descends with a gurgling sound.
- Cholera morbus, with cramps in abdomen and calves of legs.
- Convulsions, with blue face and clenched thumbs.
- Cramps in the extremities
- Clonic spasms,
- Puerperal convulsions
- Paralysis of tongue: imperfect, stammering speech.
- Epilepsy: aura begins in knees and ascends.

Confirmation

COUGH:

- Cough has a gurgling sound, as if water was being poured from a bottle. Cough >> by drinking cold water. Whooping-cough: long lasting, blue face; cataleptic spasm with each paroxysm.

MODALITIES:

- Aggravation by cold air; cold wind; at night; suppressed foot sweat or exanthema.

- Ref. Allen T. Encyclopedia of Pure Materia Medica (Vol 1-10) New York, USA : Boericke & Tafel/ Philadelphia, USA: Boericke &Tafel, 1879 // Bradford T. Index of Homeopathic Provings. New Delhi, India B.Jain Publishers. 2000. // Dake J, Hughes R. Cyclopaedia of Drug Pathogenesy (Vol 1-4) London: Gould/ New Delhi, India B.Jain Publishers. 1891. // Allens Keynotes. H.C. Allen. B. Jain Publisher. New Delhi, India.

Corroboration

- **Some examples out of 21 publications** (http://www.carstens-stiftung.de/hombrex/):

The physiology of Cuprum metallicum is well known at a very low concentration level.

- A shifting of resonance frequencies as a function of medicine and potency was observed with potencies below and above the Avogadro limit.
- Cuprum metallicum was detected up to a dynamisation of 200CH.
- In vitro, a significant lipidic peroxidation inhibition has been demonstrated using Cuprum met. C30

- Ref. Mahata, C.R. Dielectric dispersion studies of some potentised homeopathic medicines reveal structured vehicle. Homeopathy (2013), Vol. 102(4), pp. 262-267. // Chikramane, P.S.; Suresh, A.K.; Bellare, J.R.; Kane, S.G. Extreme homeopathic dilutions retain starting materials: A nanoparticulate perspective. Homeopathy (2010), Vol. 99(4), pp. 231-242. // Batello, C.F. Antioxidante effect in vitro of the homeopathic medicine Arsenicum album, Cuprum metallicum, Manganum and Zincum metallicum (2002)pp. 1-42

Verification

- **Examples out of the 143 authors** describing 7266 clinically verified symptoms of Cuprum metallicum:
- ***Symptoms***: **Mind**: the essence is want of self-confidence with very strong desire to prove that he is not worthless by holding everything under his control. Restlessness.

Verification

PHYSICAL :

- Spasmodic affections, tonic and clonic spasms, convulsions, and epileptic attacks.
- Chorea brought on by fright.
- Nausea is greater than in any other remedy.
- In epilepsy, aura begins at knees, ascends to hypogastrium
- The pains are increased by movement and touch.
- Suppuration of tonsils.

OXFORD EBM SCALE.

LEVEL 1

- 1a: SR (Systematic review) of RCT's.
- 1b: Individual RCT

LEVEL 2

- 2a: SR of cohort studies
- 2b: Individual cohort studie
- 2c: "Outcomes" research; Ecological studies.

LEVEL 3:

- 3a: SR of case-control studies
- 3b: Individual case study

LEVEL 4:

- Case-series

LEVEL 5:

- Expert opinion

Verification

Animal surveys:

- Confirmed experimental arguments in favour of the effect of very weak doses of copper (4CH) on digestive motricity in mice and rabbits are available.

Human survey:

- In a randomized, good quality placebo controlled, cross over design study on 20 patients in hemodialysis and presenting cramps the effect on cramps is clearly in favor of the Cuprum metallicum 9CH. **EBM level 1b** and all levels below.

- Ref. Dr Tinus Smits. Inspiring Homeopathy: Treatment of Universal Layers. 2013. ISBN 9789076189000. // First line medicine – Clinical verification – Verification of homeopathic symptoms ISBN (2008) 978-2-87491-003-6 /Van Wassenhoven M. // Boericke, William; Boericke, Oscar E. (1927). *Homeopathic Materia Medica*. ISBN 0766183882 // First experimental arguments in favor of the effect of very weak doses of copper on digestive motricity in mice and rabbits Santini,R., Tessier,M.,Belon, P.,Pacheco,H. // Hariveau E, Nolen P, Holtzscherer A. A study of the effectiveness of ultra low doses of copper in the treatment of hemodialysis-related muscle cramps. In: Doutremepuich C (ed.) Ultra Low Doses. London, Taylor & Francis 1991: 145–149. // Linde K, Clausius N, Ramirez G, Melchart D, Eitel F, Hedges LV, Jonas WB : Are the clinical effects of homoeopathy placebo effects ? A meta-analysis of placebo-controlled trials. Lancet 1997, 350:834-843.

DYNHOM

See you after the break!