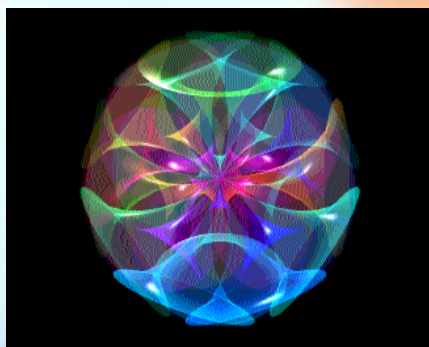


Aplicaciones de Microscopía Electrónica de Barrido en Tejido Cerebral



TESSY MARÍA LÓPEZ GOERNE
PATRICIA SANTIAGO





Casa abierta al tiempo
UNIVERSIDAD AUTÓNOMA METROPOLITANA





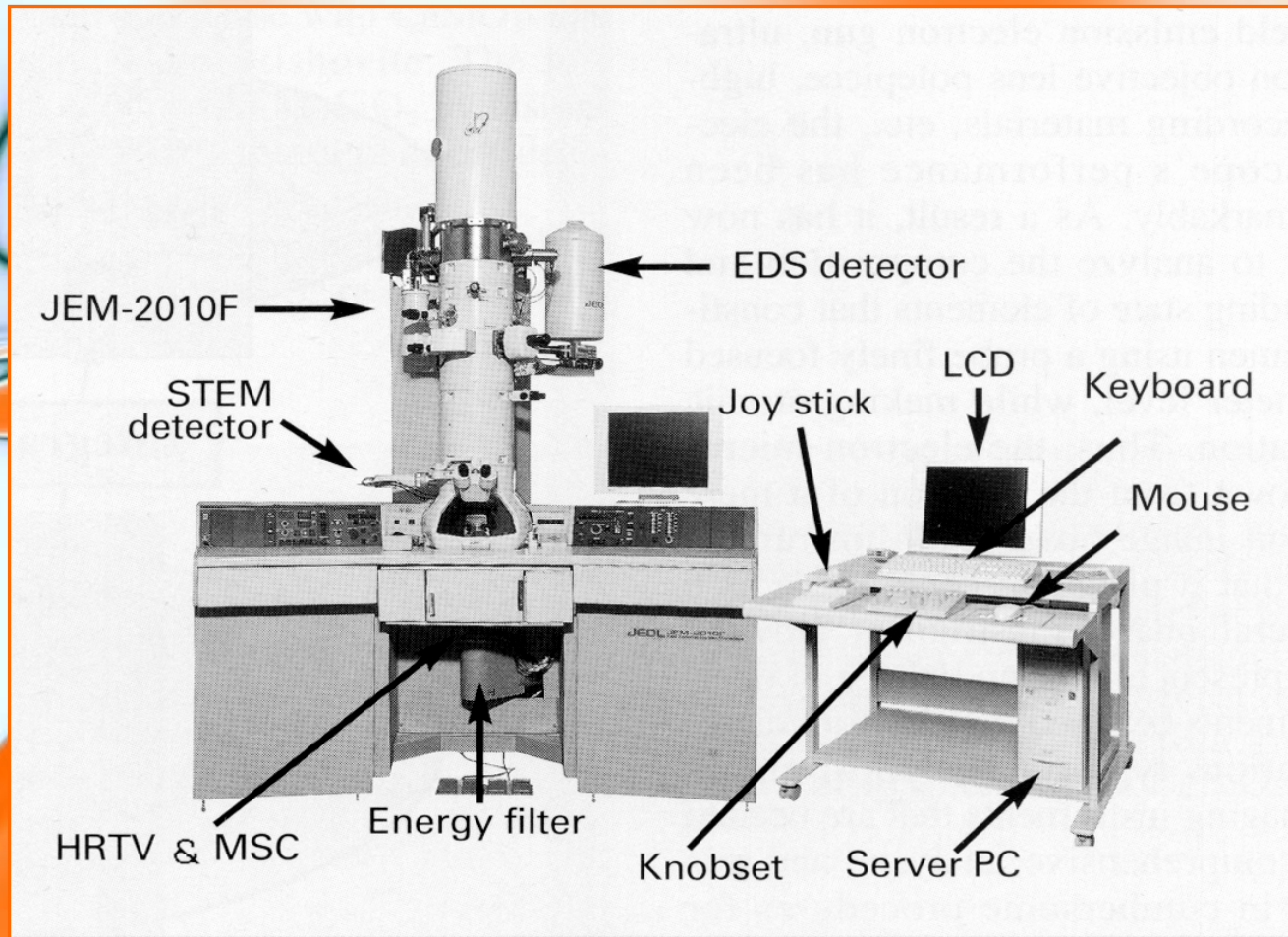
Instituto de Física
Universidad Nacional Autónoma de México



El método de empleo del microscopio electrónico de transmisión de forma remota

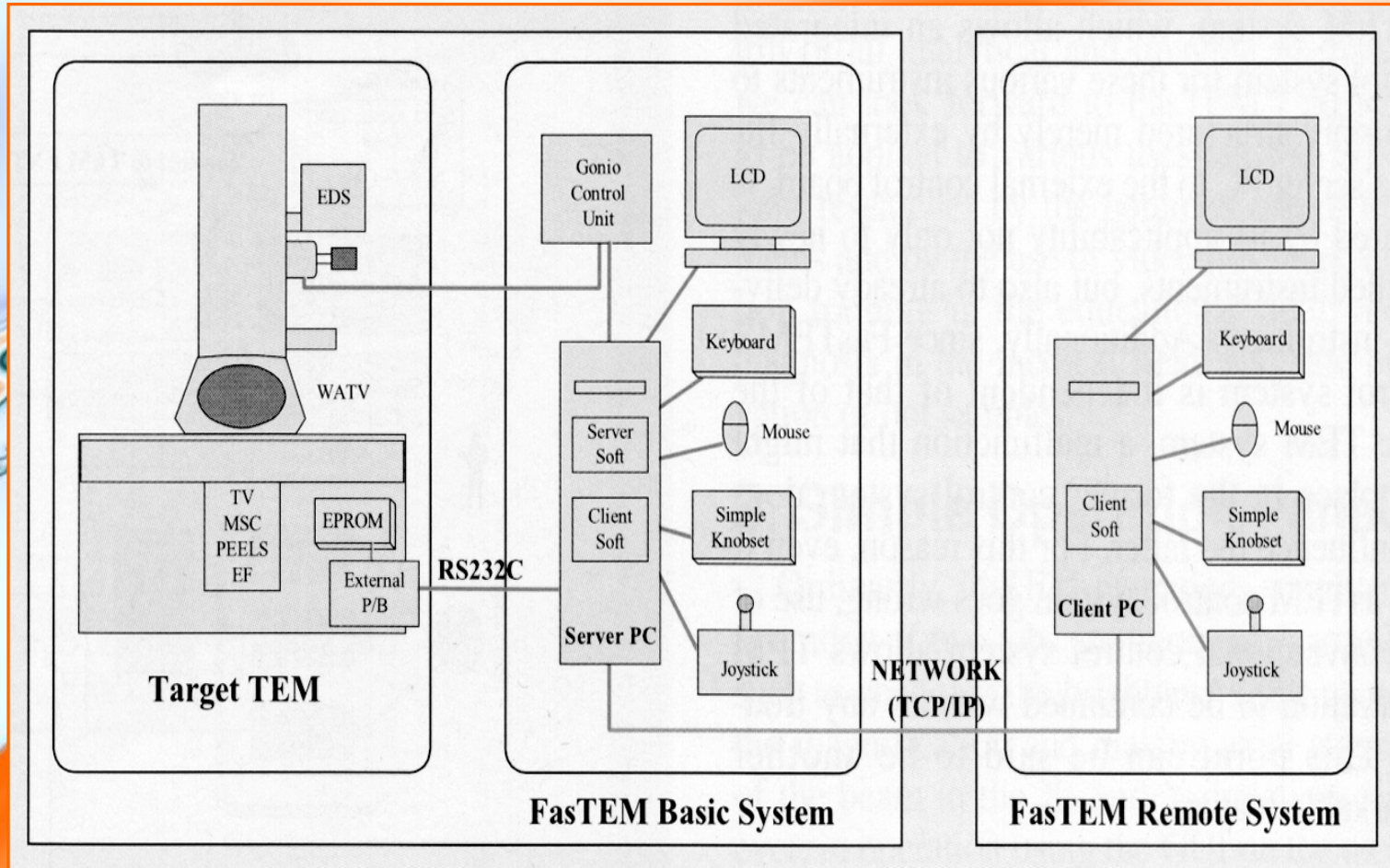


El método de empleo del microscopio electrónico de transmisión de forma remota



Sistema básico de un microscopio de alta resolución analítico JEM 2010-FasTem

El método de empleo del microscopio electrónico de transmisión de forma remota



Conexión remota al sistema básico del microscopio electrónico

El método de empleo del microscopio electrónico de transmisión de forma remota

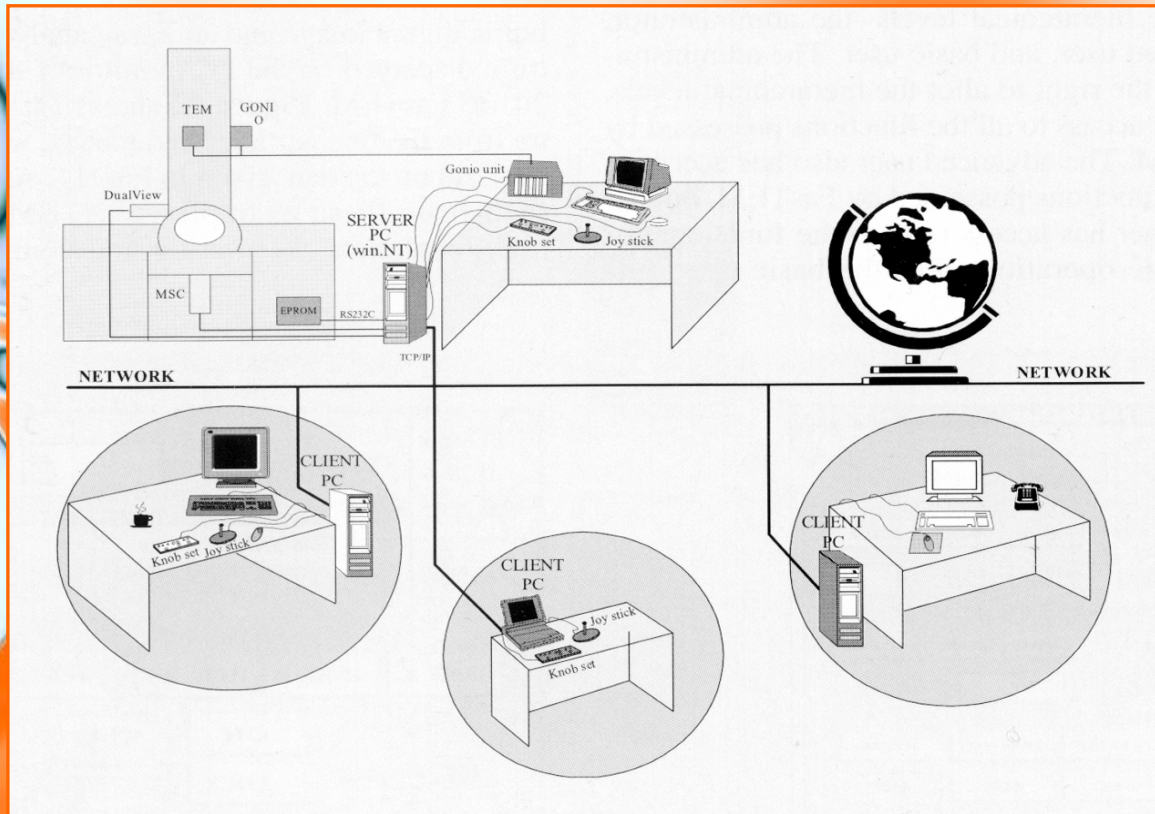
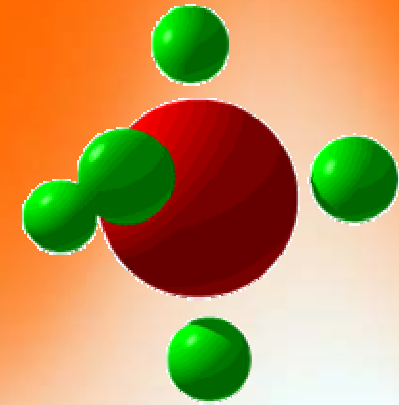
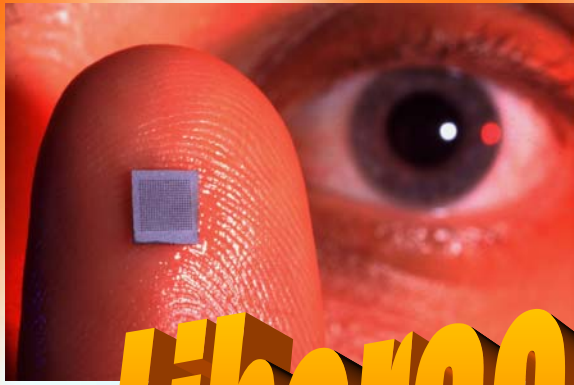


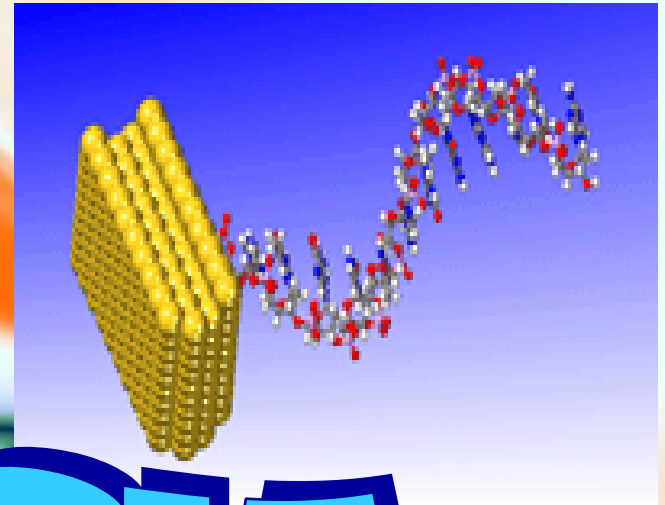
Diagrama del uso vía Internet de un microscopio electrónico de Transmisión



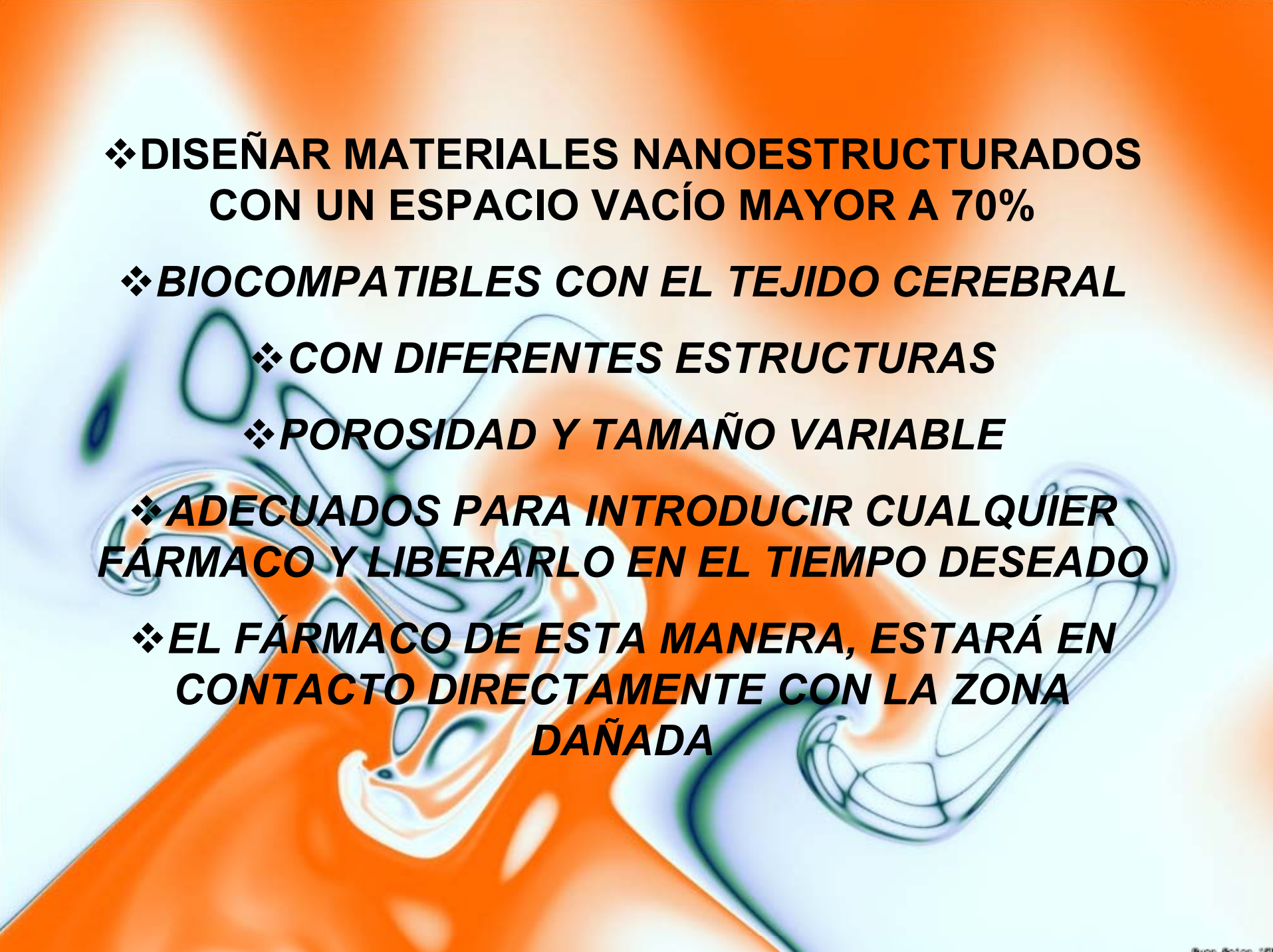
PROYECTO MULTIDICIPLINARIO



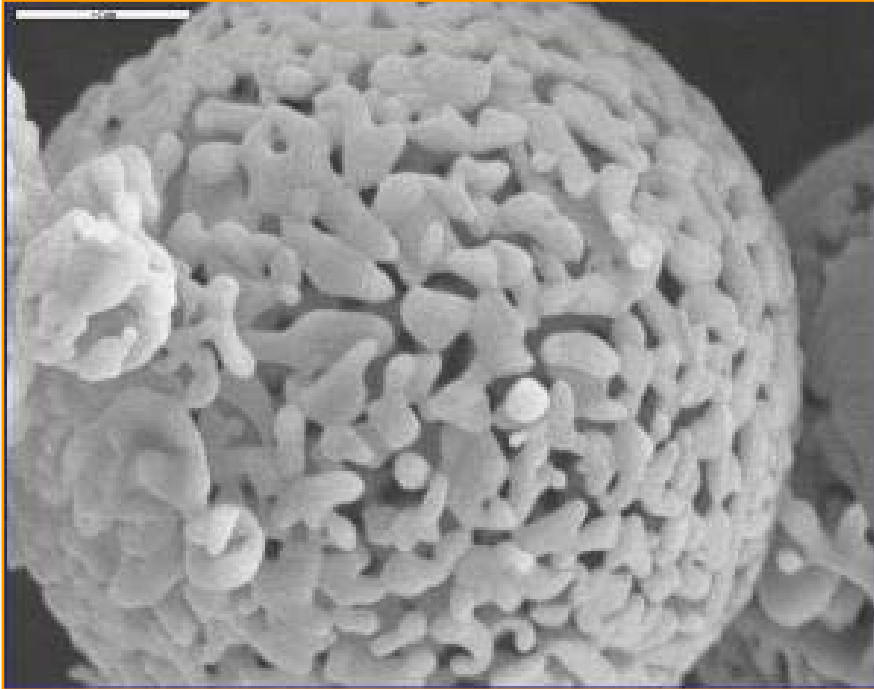
liberación controlada



EPILEPSIA

- 
- ❖ **DISEÑAR MATERIALES NANOESTRUCTURADOS CON UN ESPACIO VACÍO MAYOR A 70%**
 - ❖ **BIOCOMPATIBLES CON EL TEJIDO CEREBRAL**
 - ❖ **CON DIFERENTES ESTRUCTURAS**
 - ❖ **POROSIDAD Y TAMAÑO VARIABLE**
 - ❖ **ADECUADOS PARA INTRODUCIR CUALQUIER FÁRMACO Y LIBERARLO EN EL TIEMPO DESEADO**
 - ❖ **EL FÁRMACO DE ESTA MANERA, ESTARÁ EN CONTACTO DIRECTAMENTE CON LA ZONA DAÑADA**

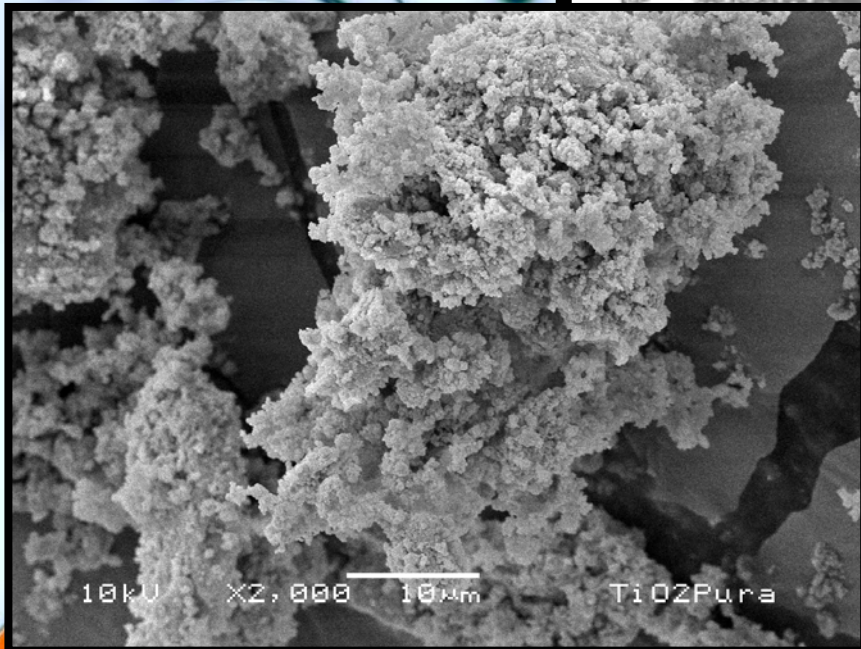
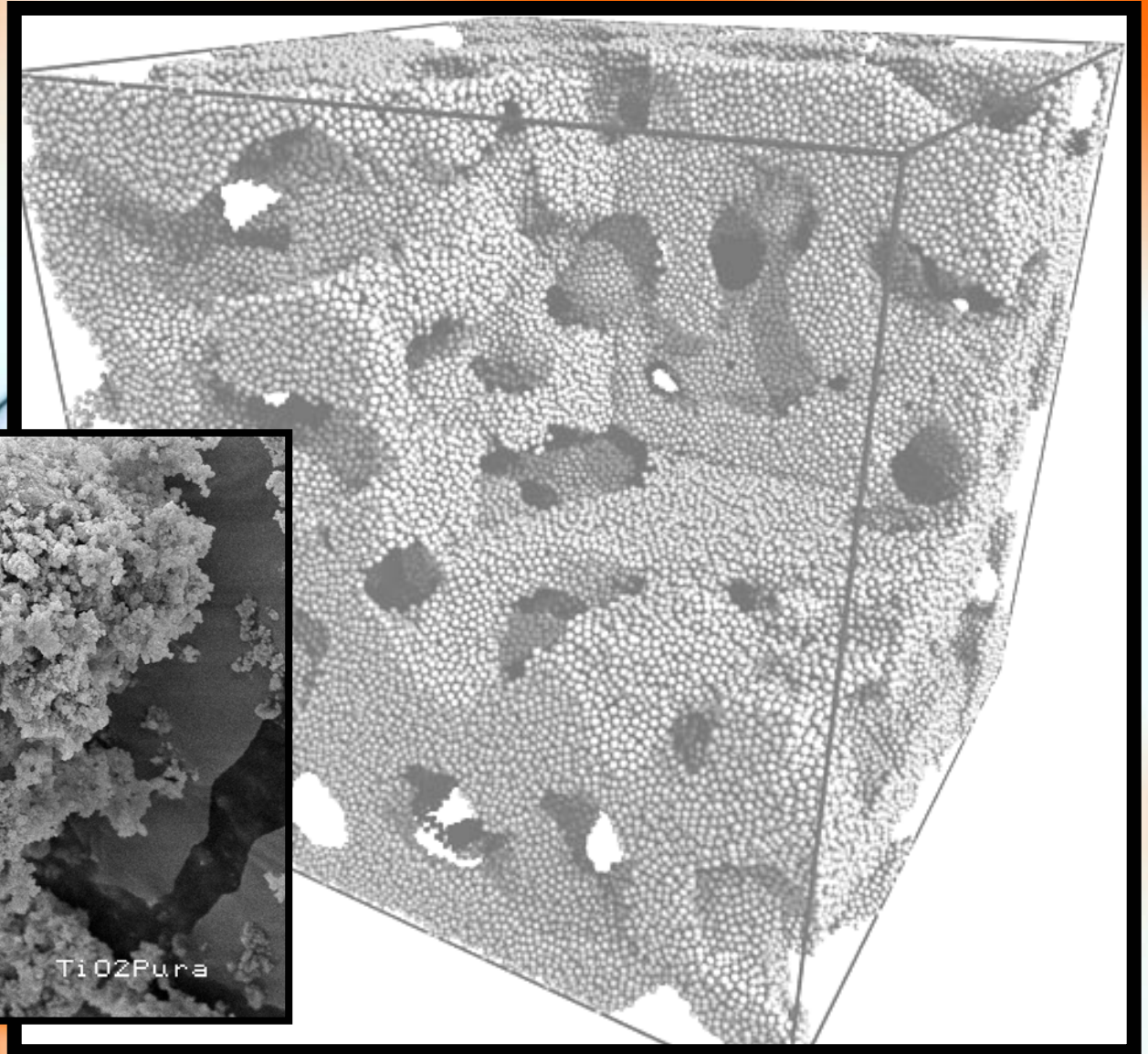
Nanomedicina: Transporte de fármacos TiNano Spheres™



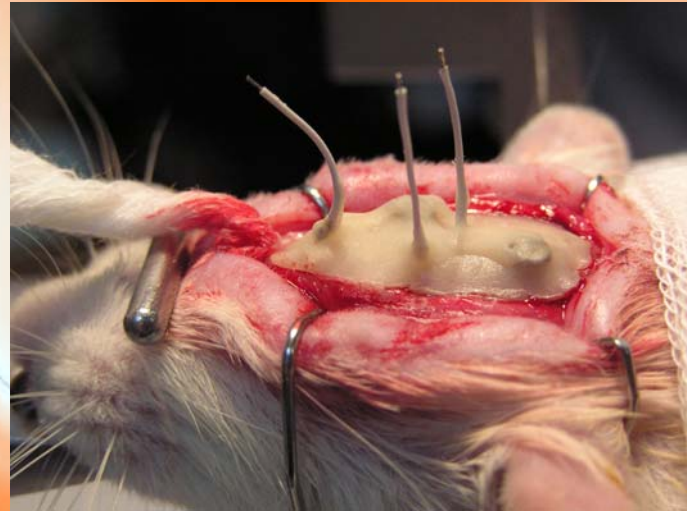
- Dr. Jorge Ascencio (IMP)
- Dra. Tessa López (UAM-I)

La empresa Altair Nanomaterials ha desarrollado estructuras nanométricas capaces de transportar ingredientes farmacéuticos activos (API-active pharmaceutical ingredients) tales como pesticidas, fungicidas, biocidas que se ponen en la superficie o en el interior de las nanoesférmas. Las nanoesférmas TiNano-Spheres™ son producidas usando una patente de Altair llamada “crecimiento en película”. Las nanoparticulas tienen una gran área superficial y cuando estas son recubiertas con algún ingrediente farmacéutico activo (API) transporta una gran cantidad de la droga en el bio-sistema. Esta gran interfase aumenta la solubilidad y las velocidades de reacción.

TITANIA

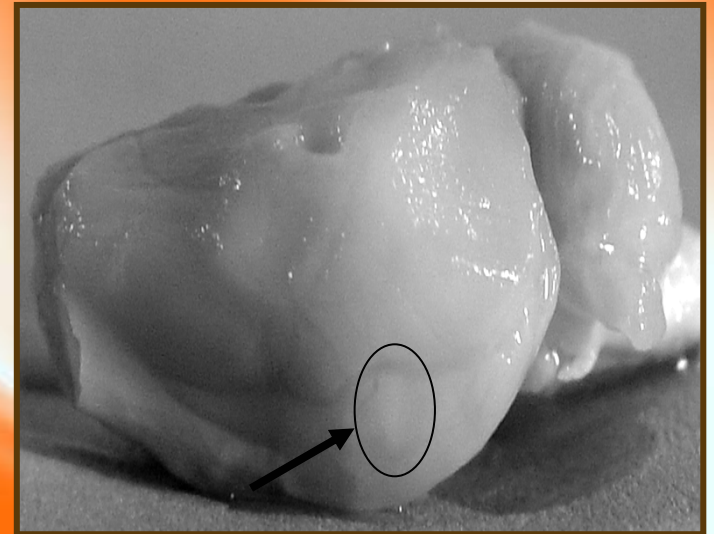
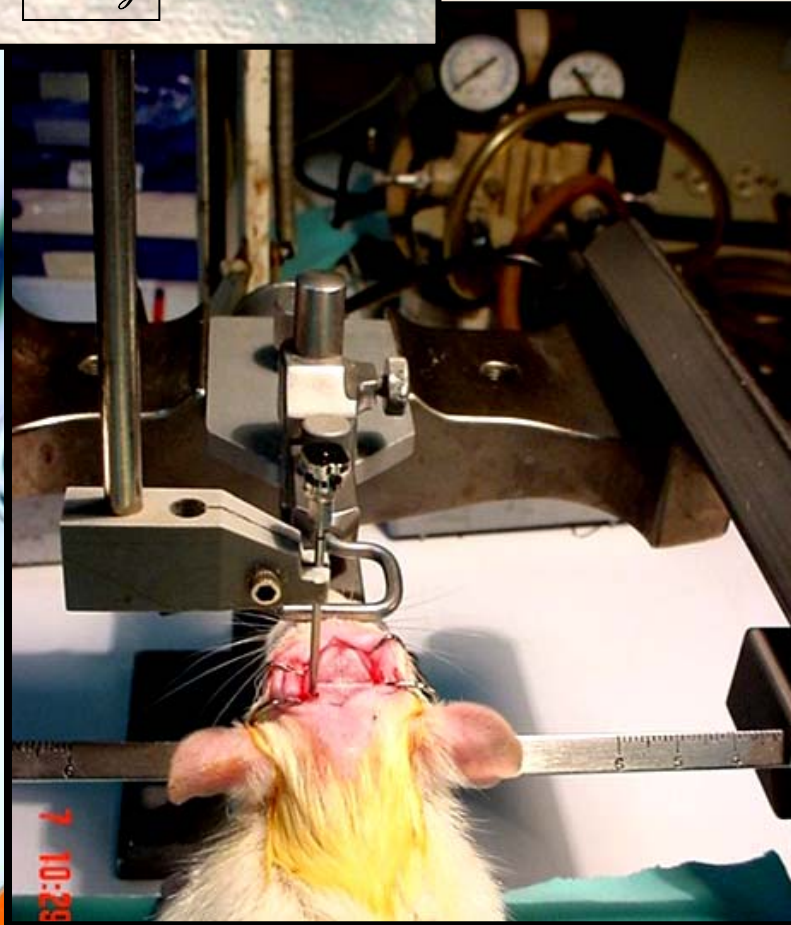
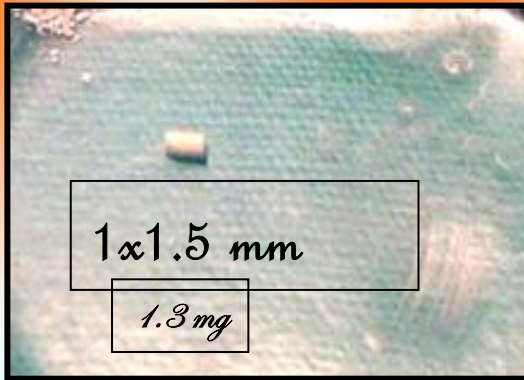


Método de Kindling



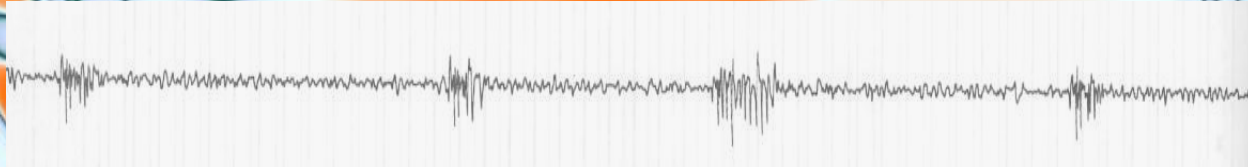
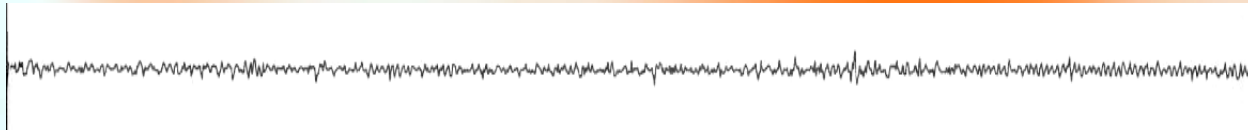
Se ponen electrodos para monetorear las crisis epilépticas inducidas usando PTZ (pentafeniltetrazol)

Cirugía Estereotáctica en Ratas



Registro electrográfico de una rata kindleada con TiO₂-VAP (acido Valproico) en la ABL.

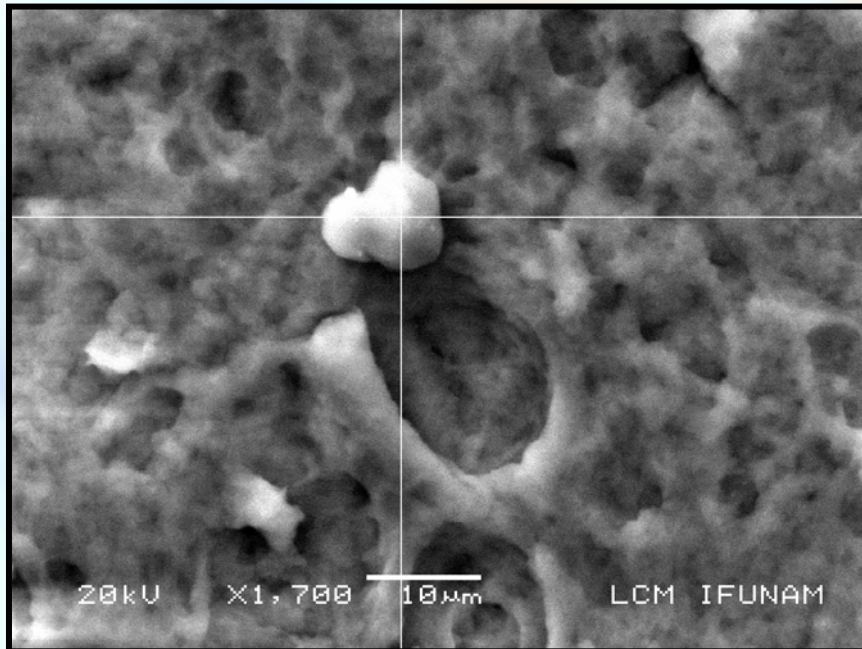
CONTROL



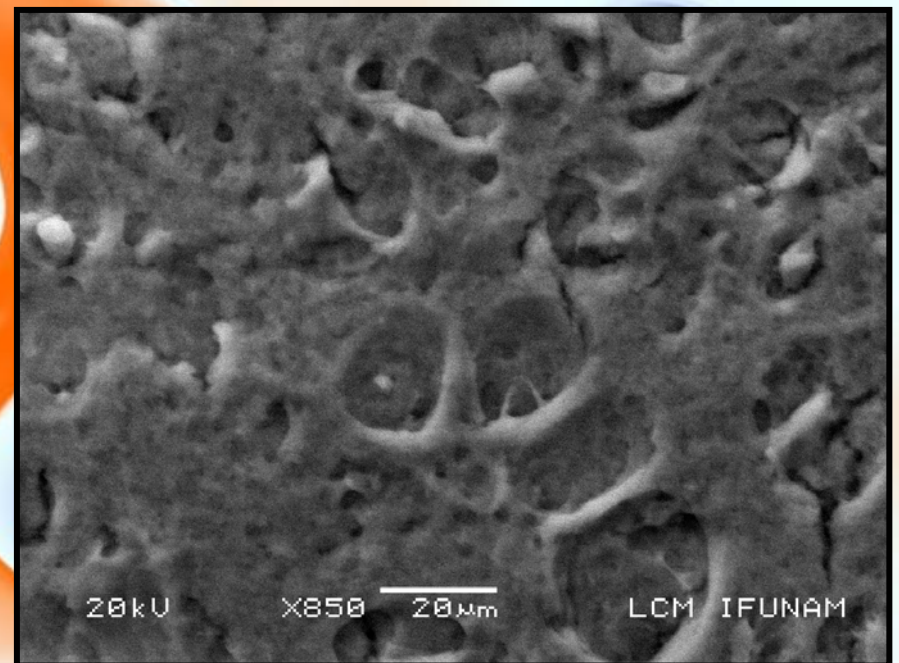
Tiempo
"x"



CRISTALES DE CARBONATO DE CALCIO EN EL CEREBRO DE RATAS CON VARIAS CRISIS EPILEPTICAS



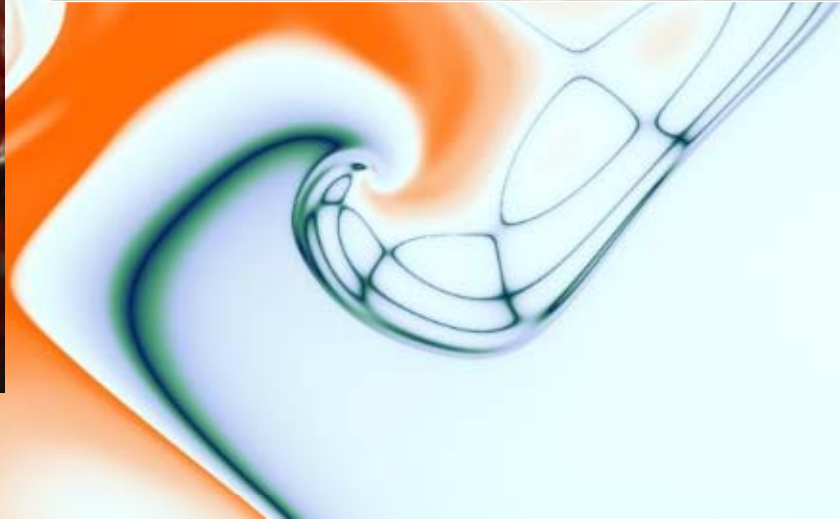
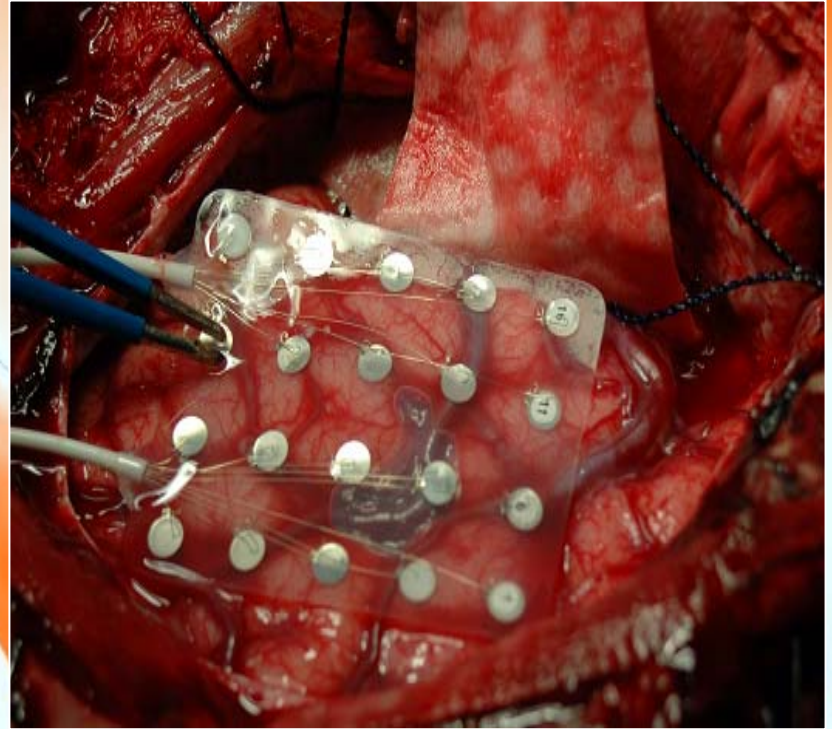
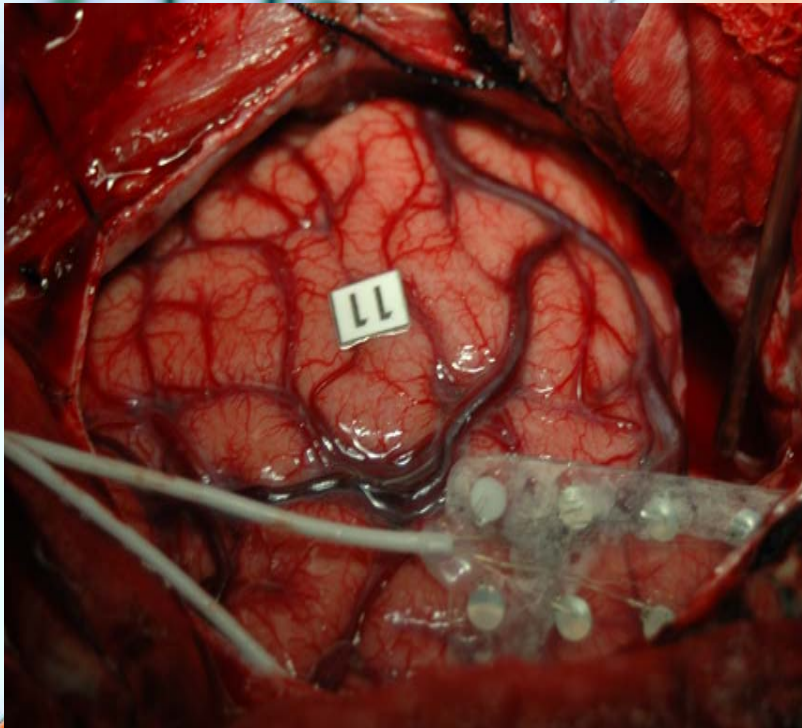
Depositos de cristales iónicos que se observan en tejidos de ratas epilépticas

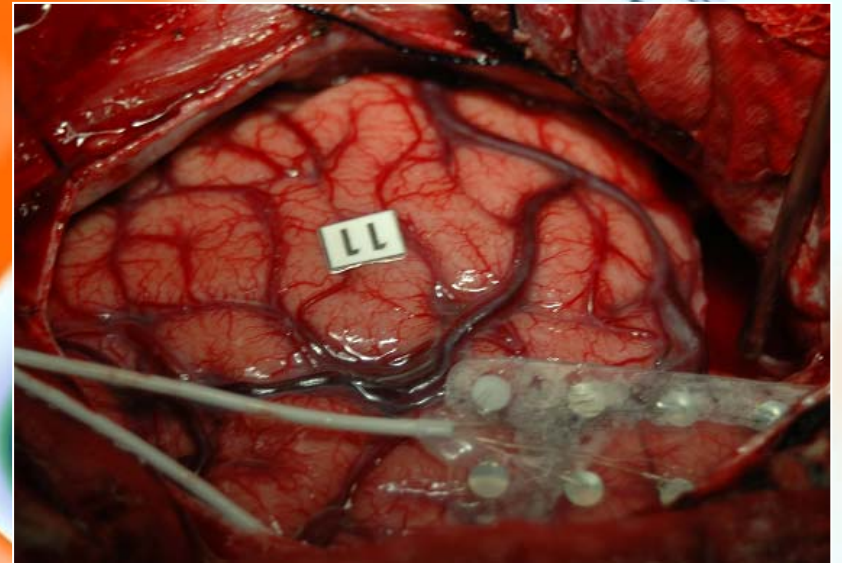
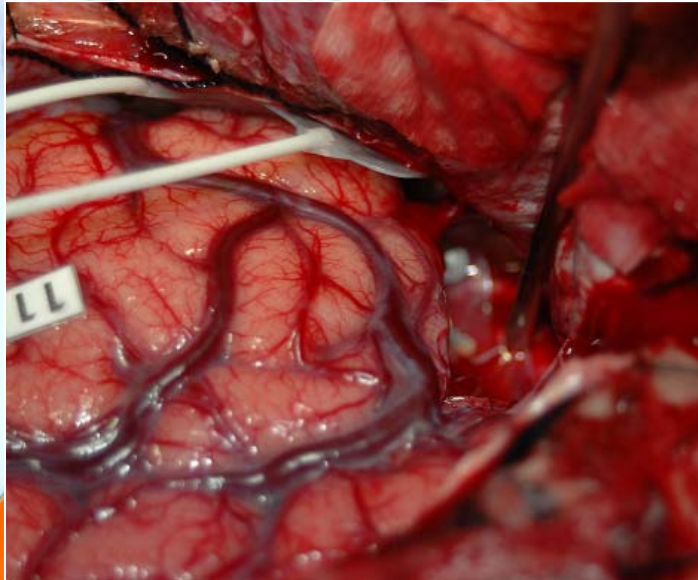
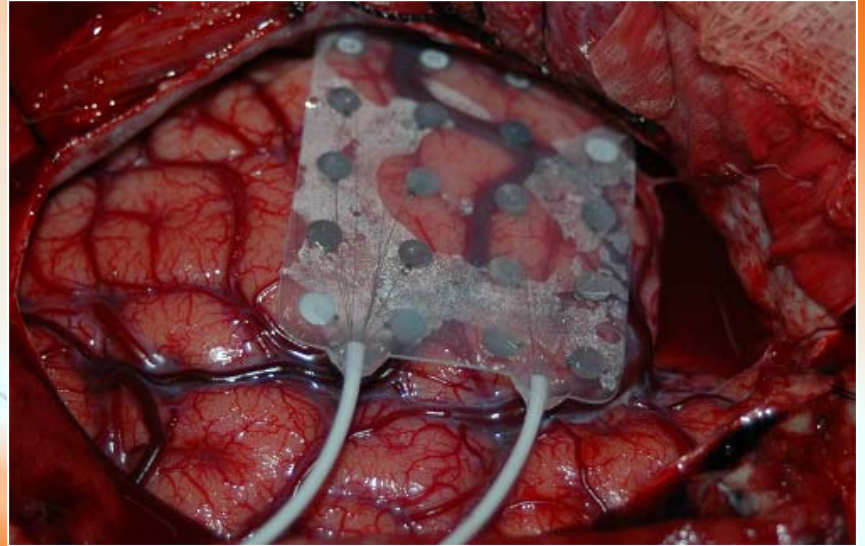
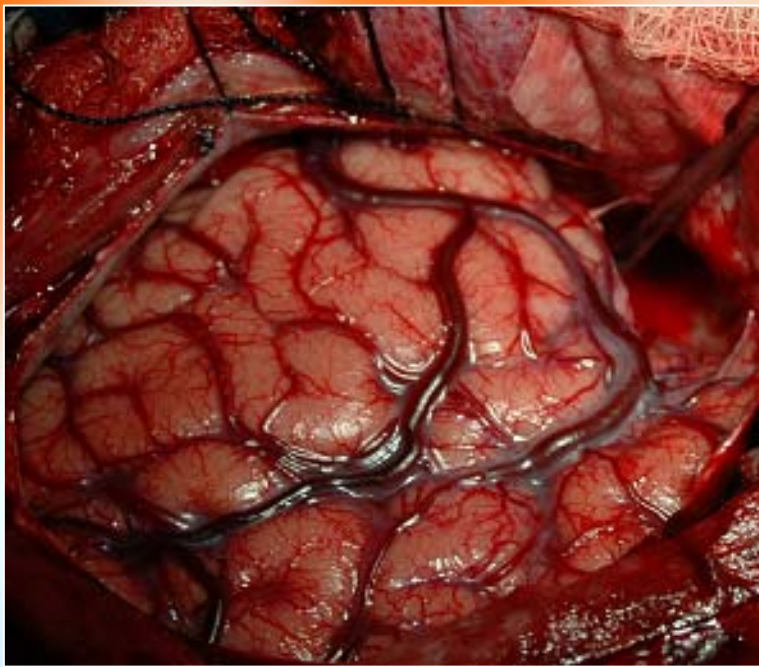


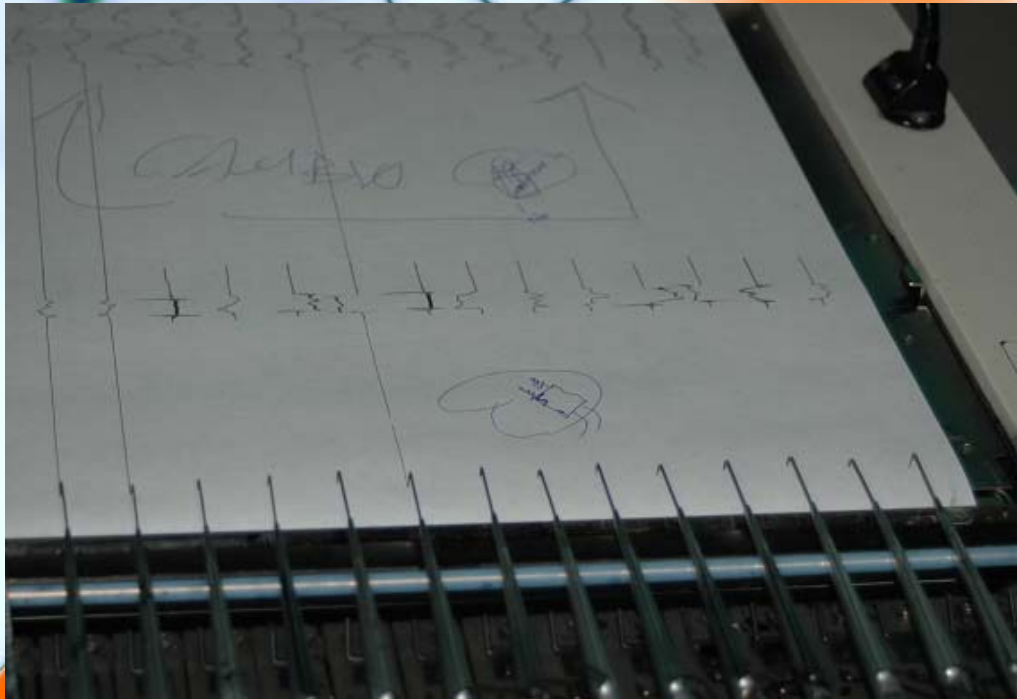
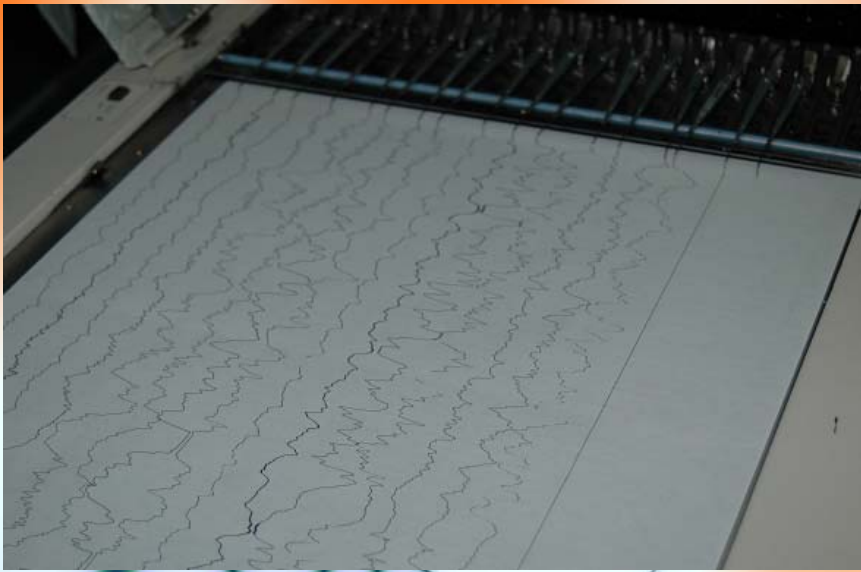
The image features a vibrant, abstract background with a gradient of orange and white. The background is composed of fluid, wavy, and somewhat distorted shapes, creating a sense of movement and depth. Overlaid on this background is the word "HUMANOS" in a large, bold, black, sans-serif font. The text is slightly tilted and positioned in the upper-middle section of the frame.

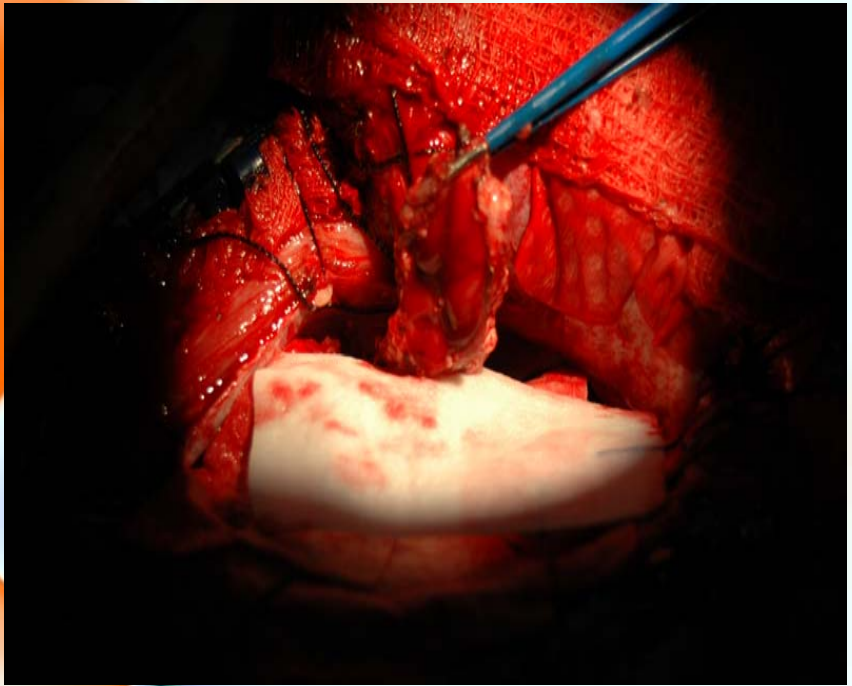
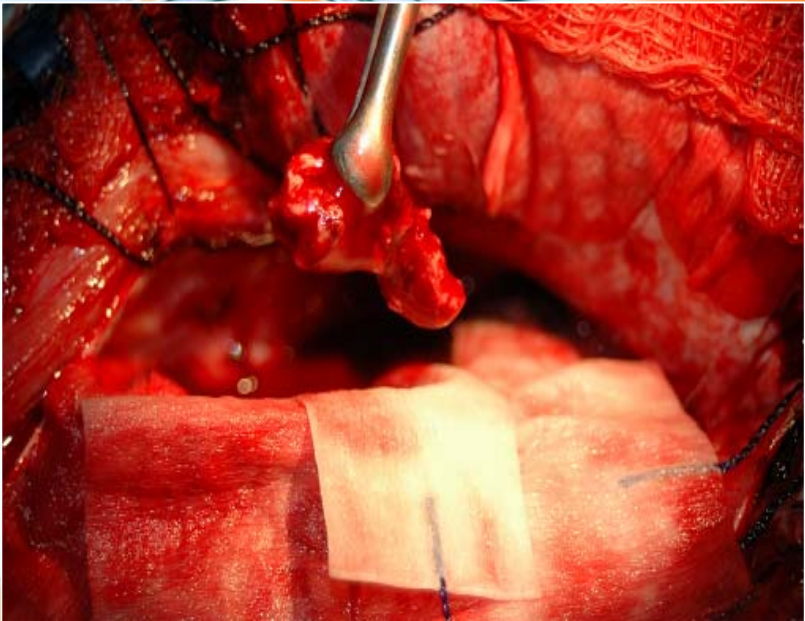
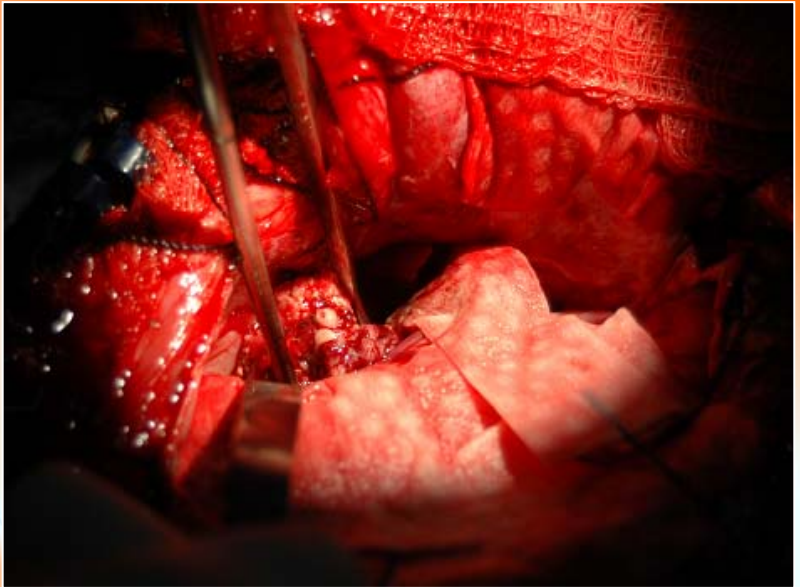
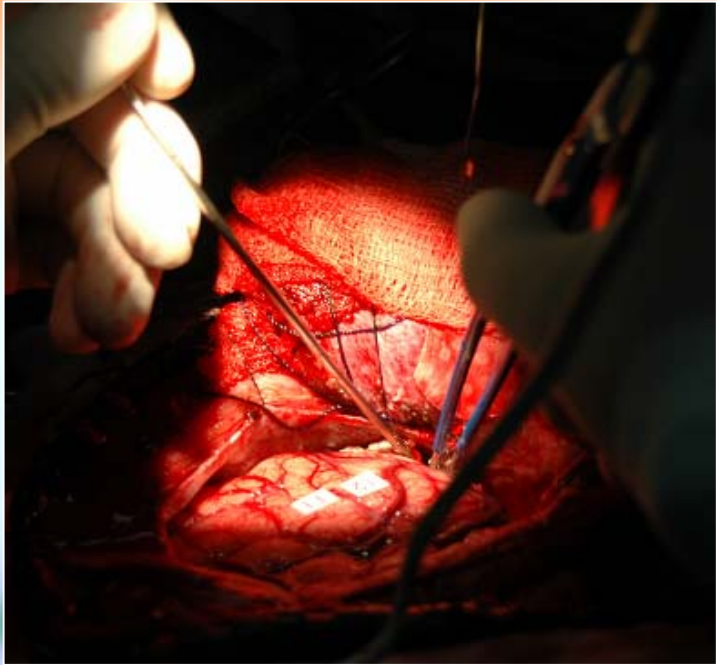
HUMANOS

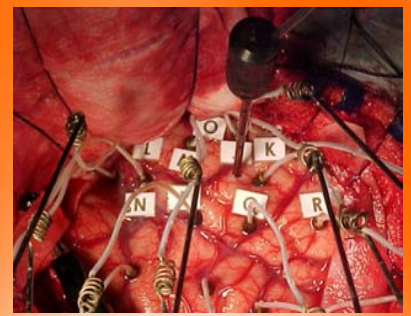
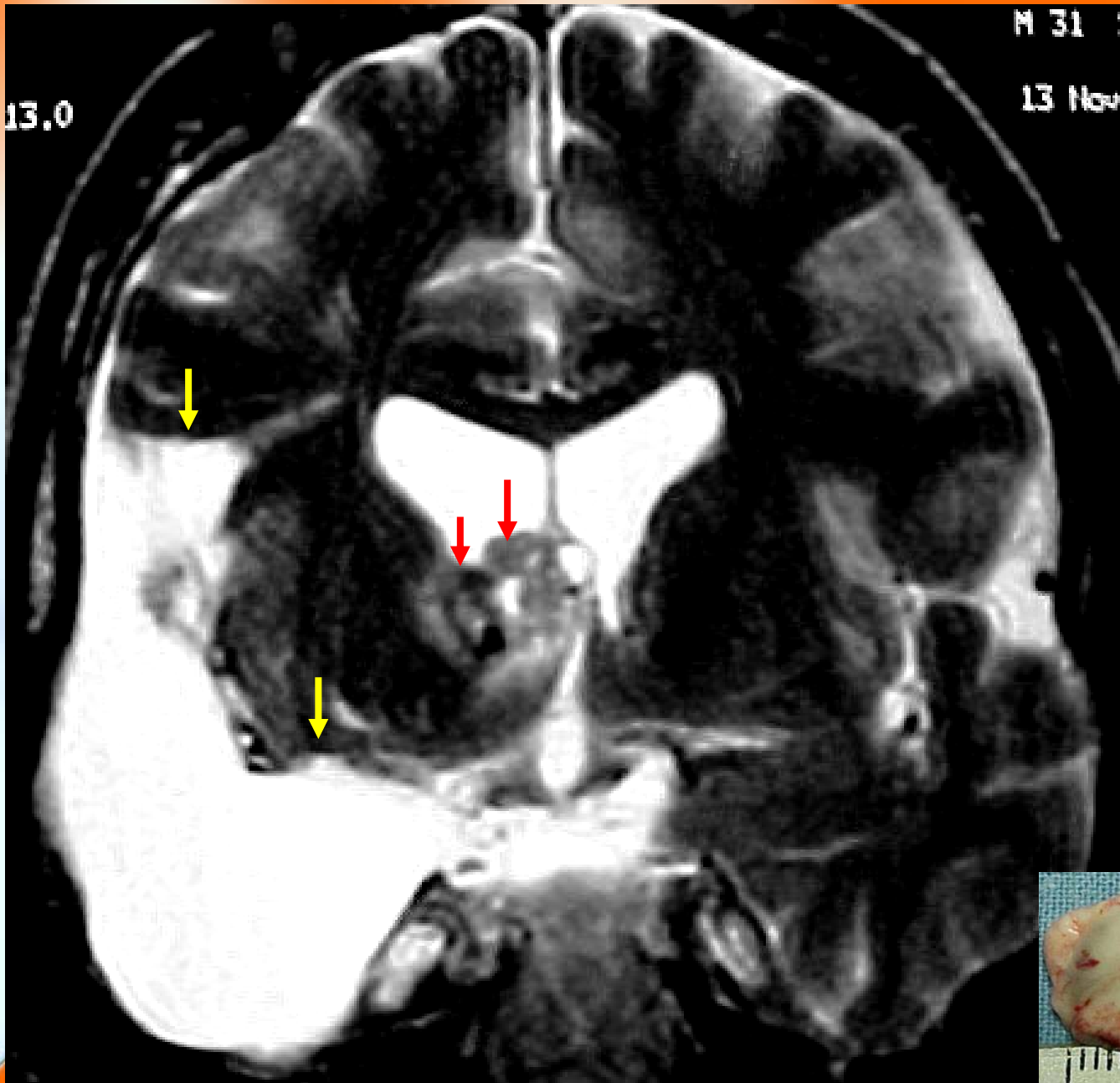
EPILEPSIA





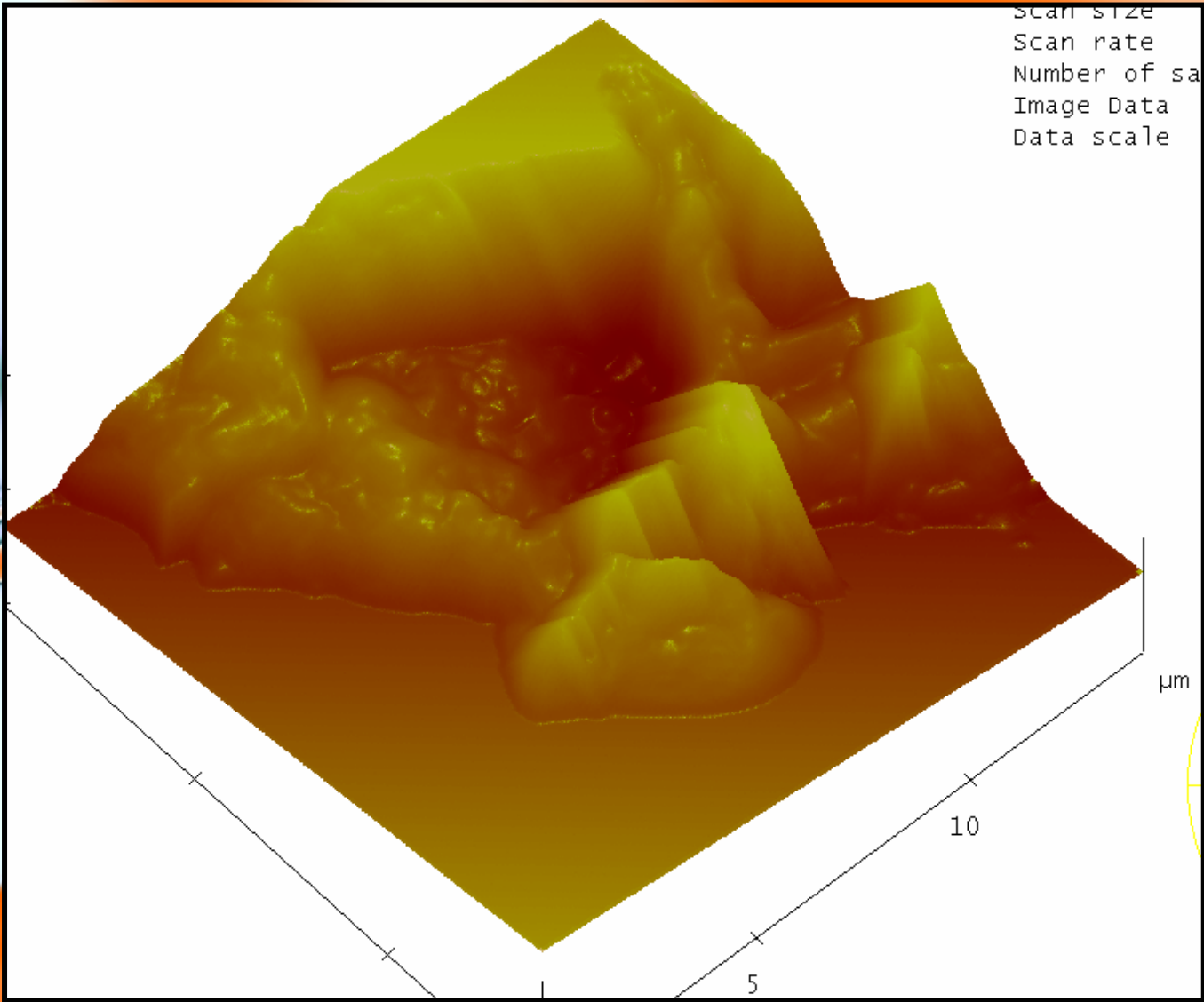


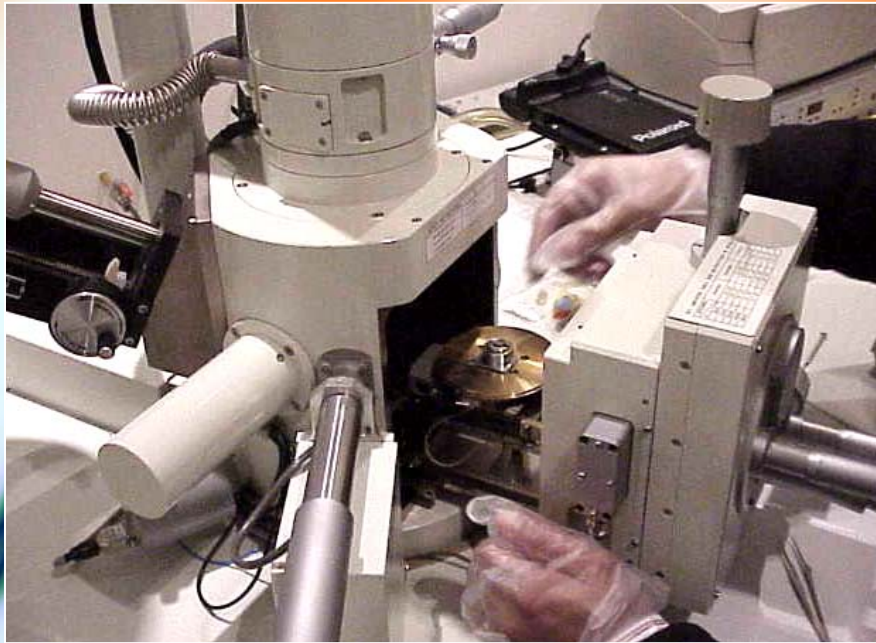


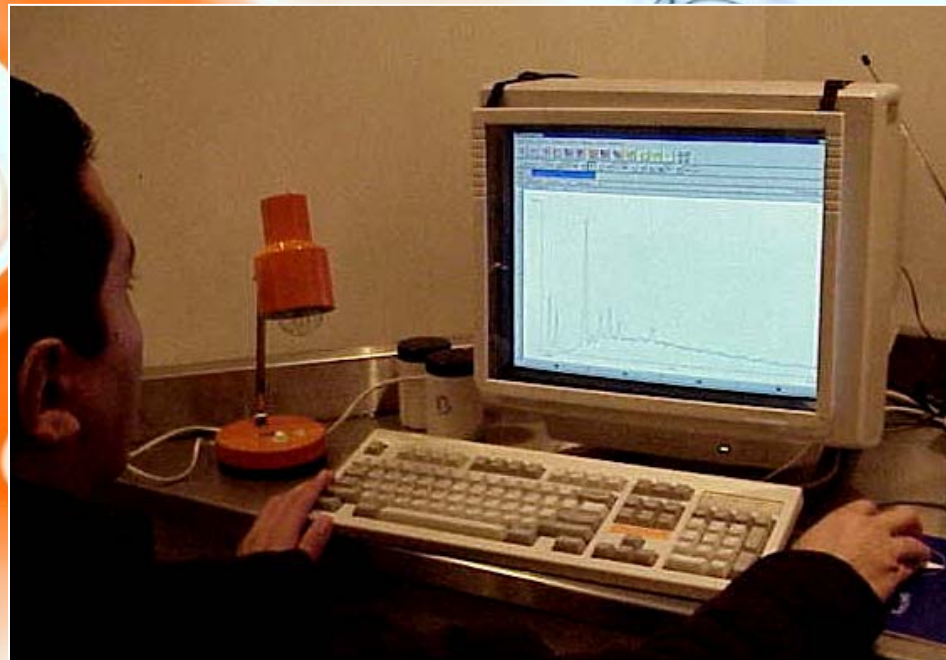
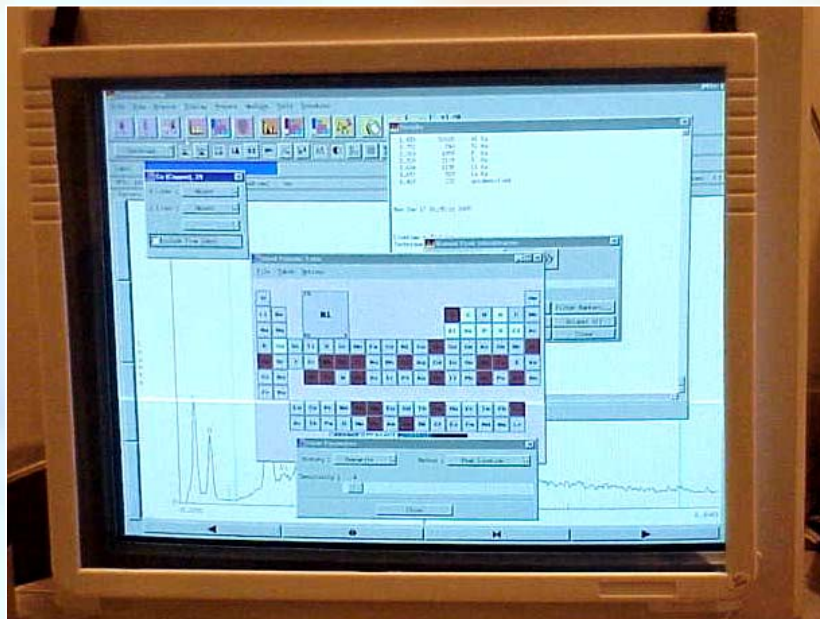


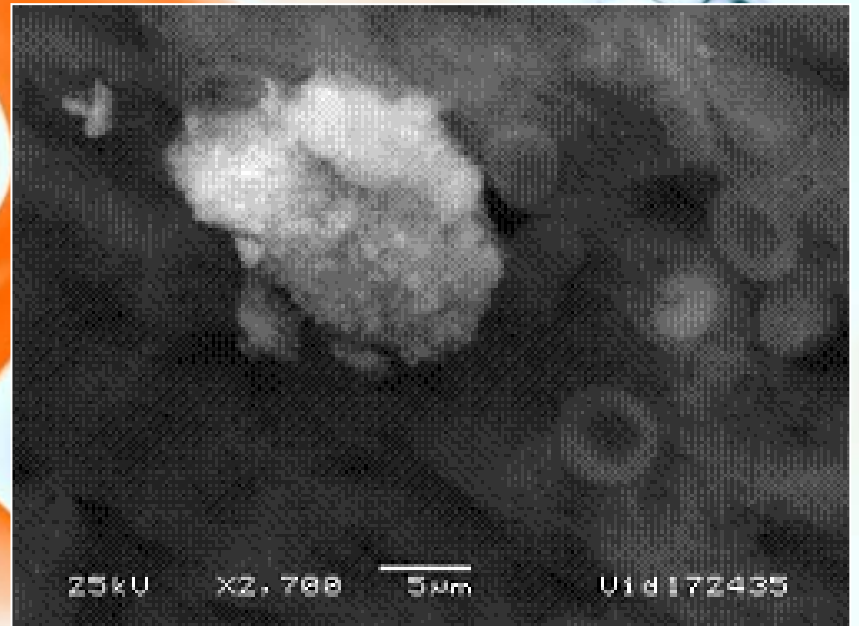
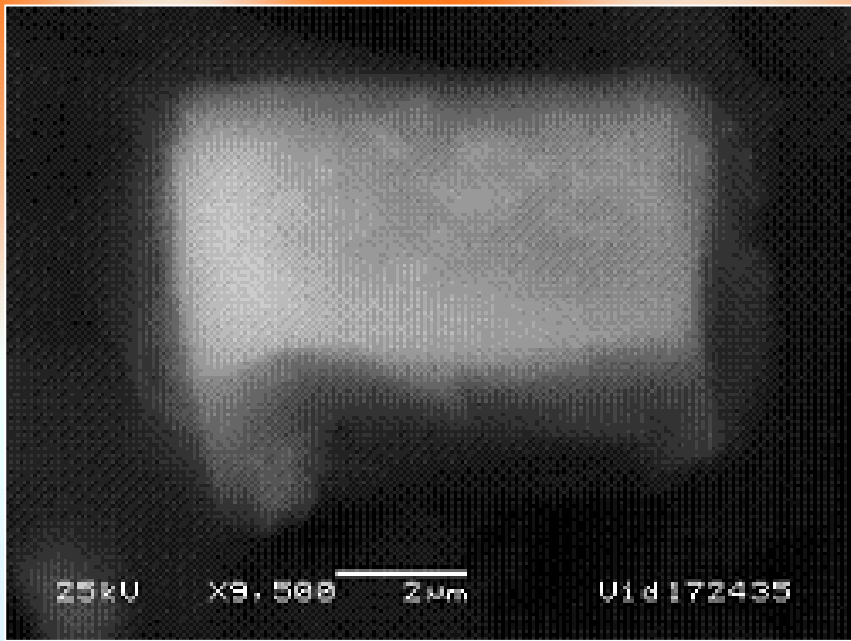


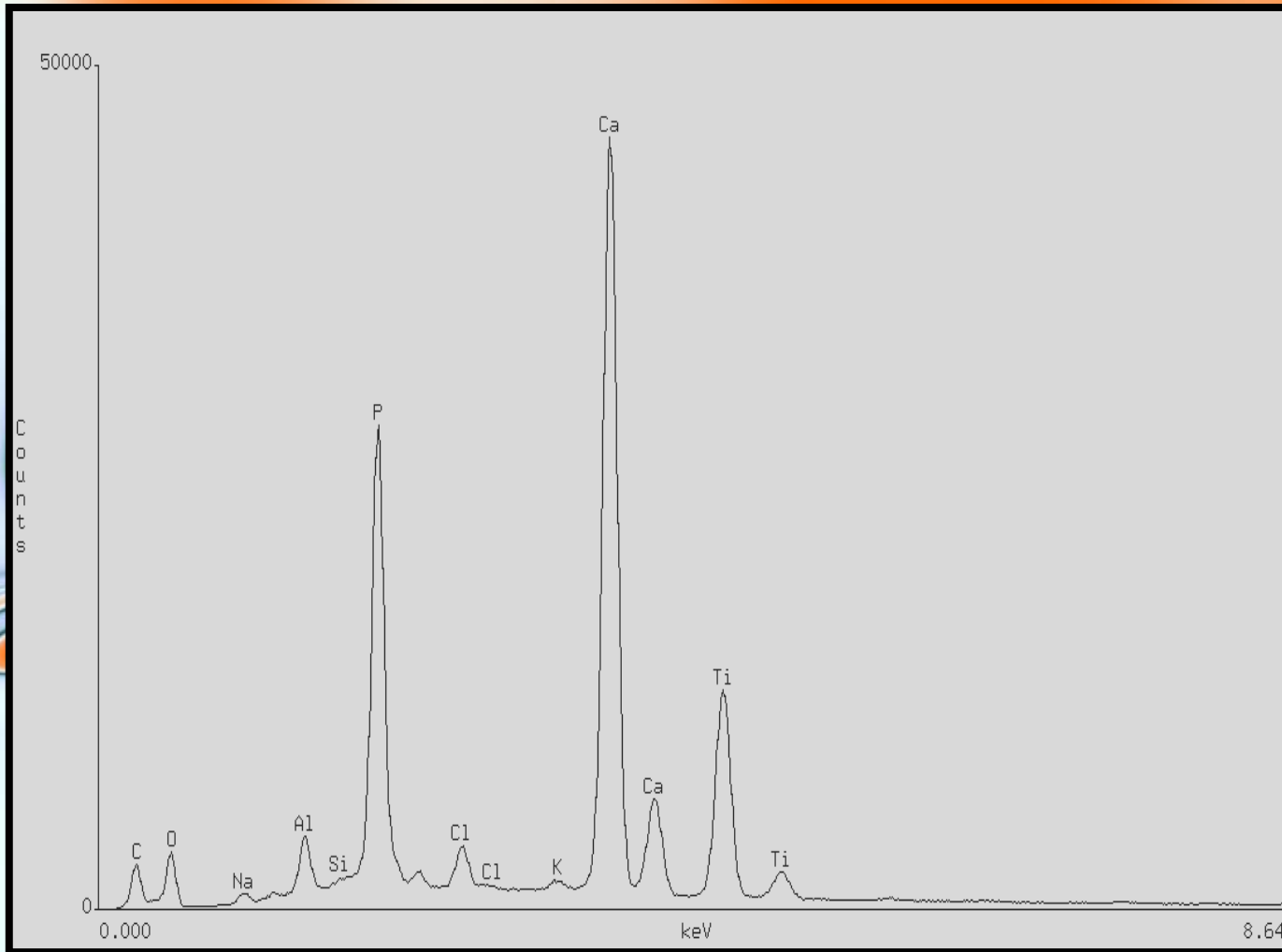






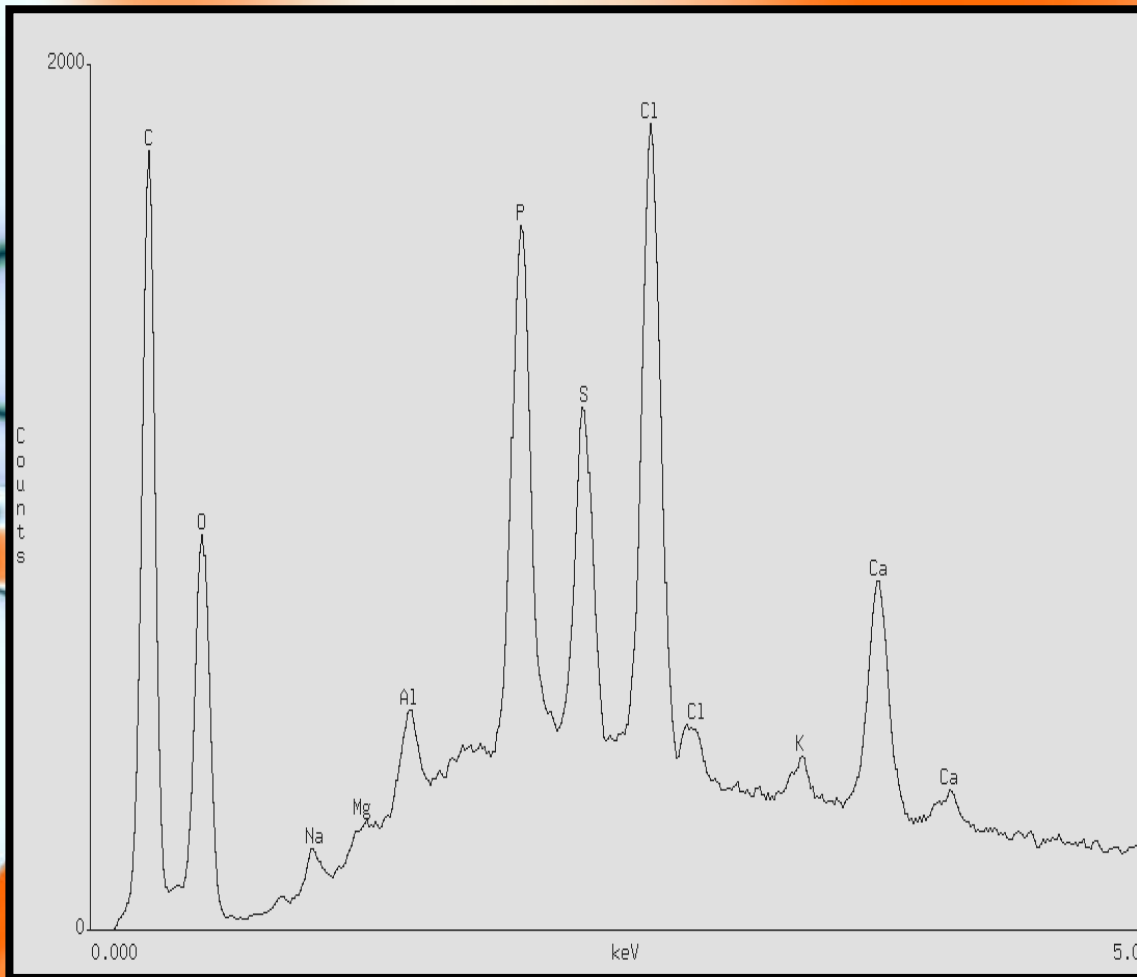


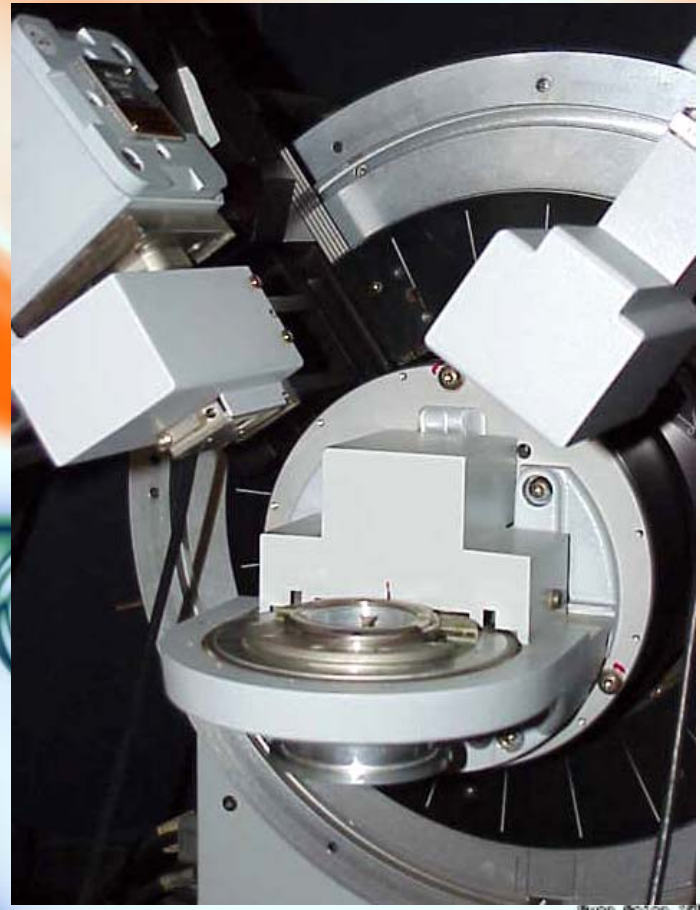




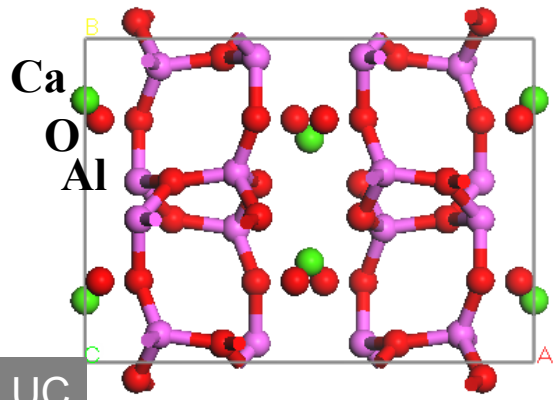
CaCO_3
 Grossita $\text{Ca}_x\text{Al}_y\text{O}_z$
 Brussita MgO

En todos los tipos de tumoraciones se ha encontrado un exceso anormal de Al y concentraciones altísimas de carbonato de Calcio.

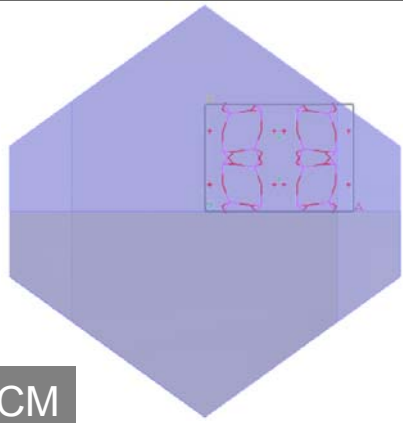




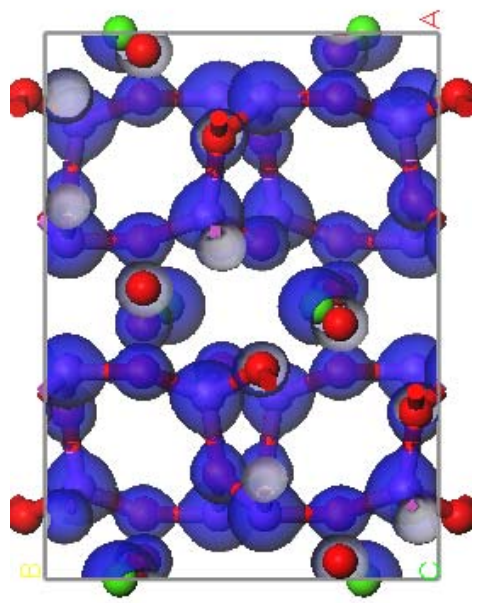
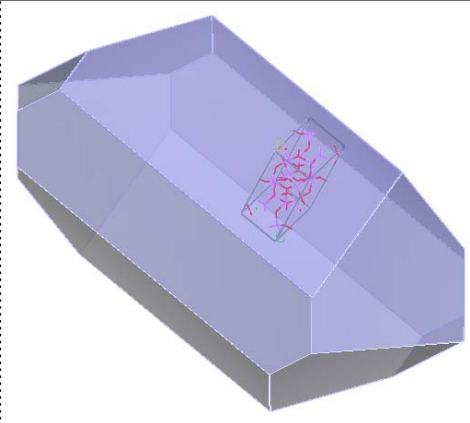
**Difractómetro de
Rayos X
Siemens D-5000**



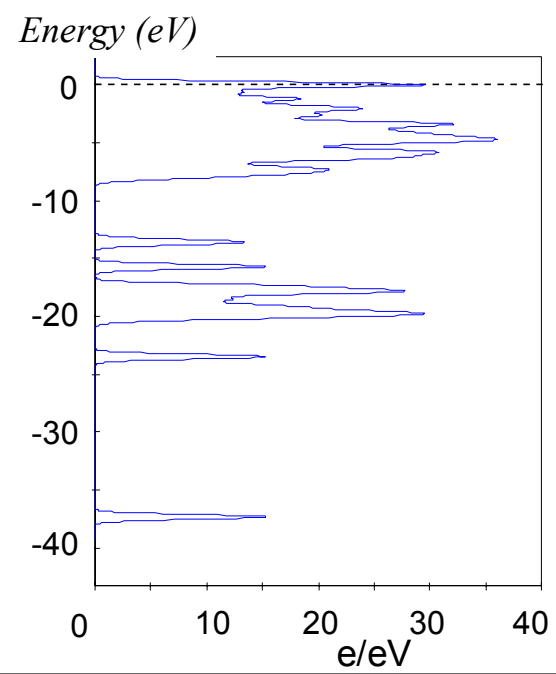
UC



CM



EP



DOS

B

CAVERNOMAS MULTIPLES



Signa 3T SYS#3T1234
Ex: 5857
Se: 2
In: 4
DSeg R39.6

Neurologia
PEREZ PALMERO LEONARDO
M 25 139454 RAL

20 Oct 2004
03:56:28 PM
Mag = 1.4
FL:
ROT:

ET:4

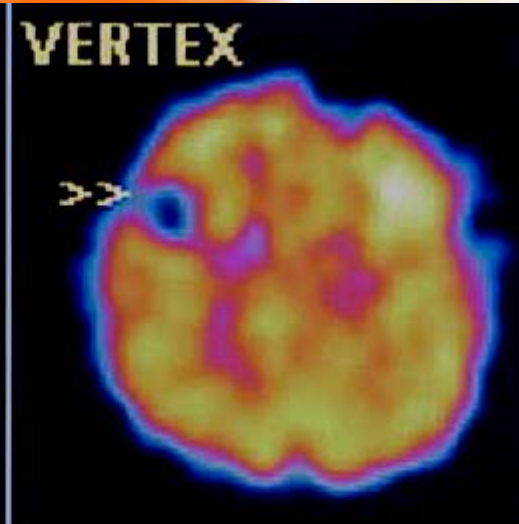
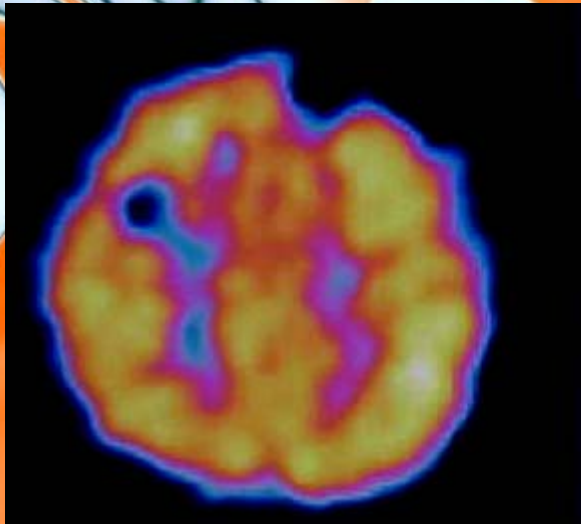
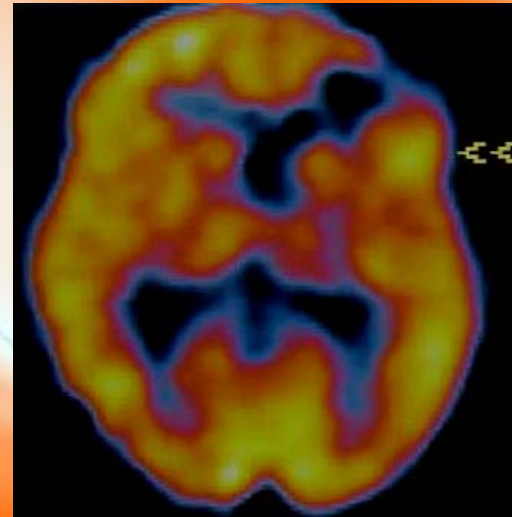
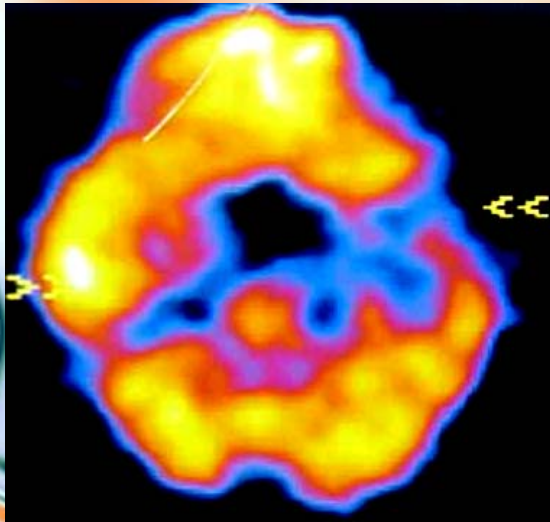
A
100

P
78

t1flair750
TR:2711
TE:12.8/EF
EC:1/1 31.2kHz
TI:850
HEAD
FOV:25x25



PET SCAN



Patient

System

Printer

Program

Display

Fp1-F7

F7-T3

T3-T5

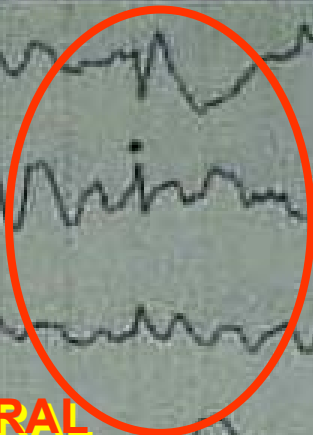
T5-O1

Fp1-F3

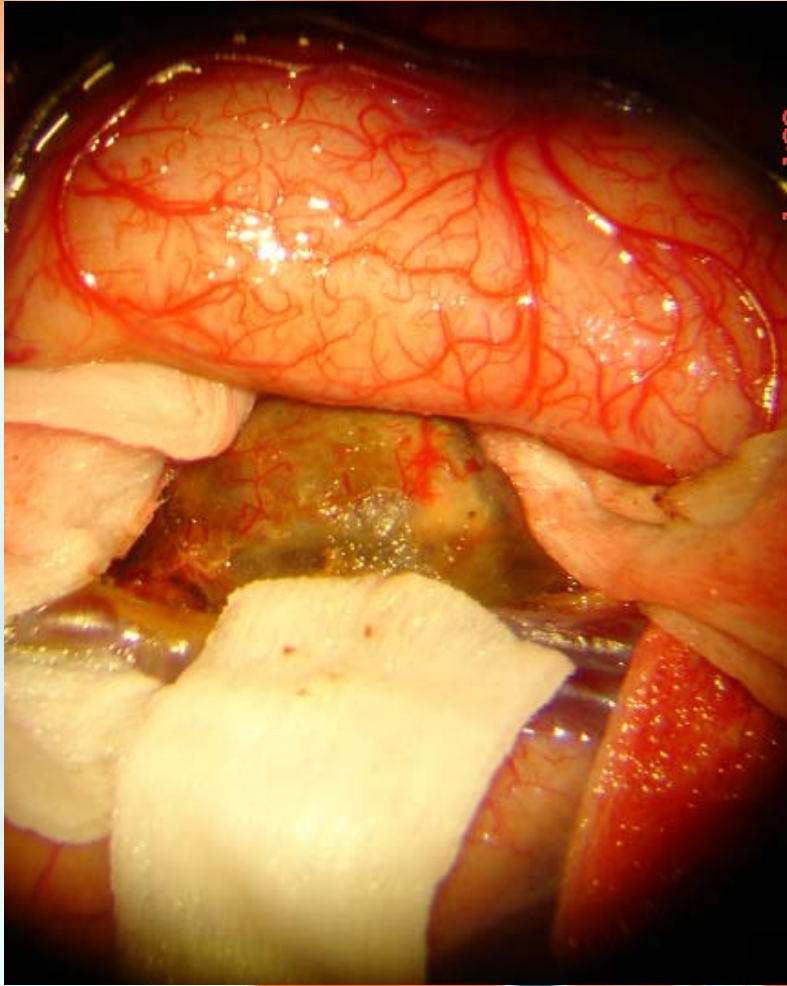
F3-C3

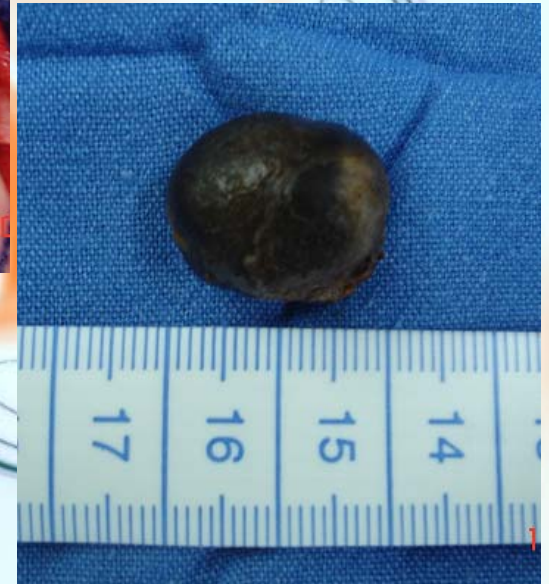
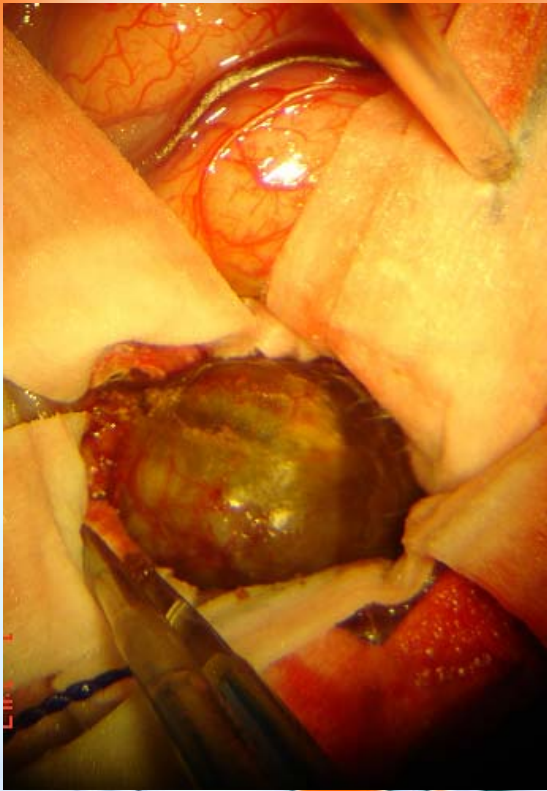
C3-P3

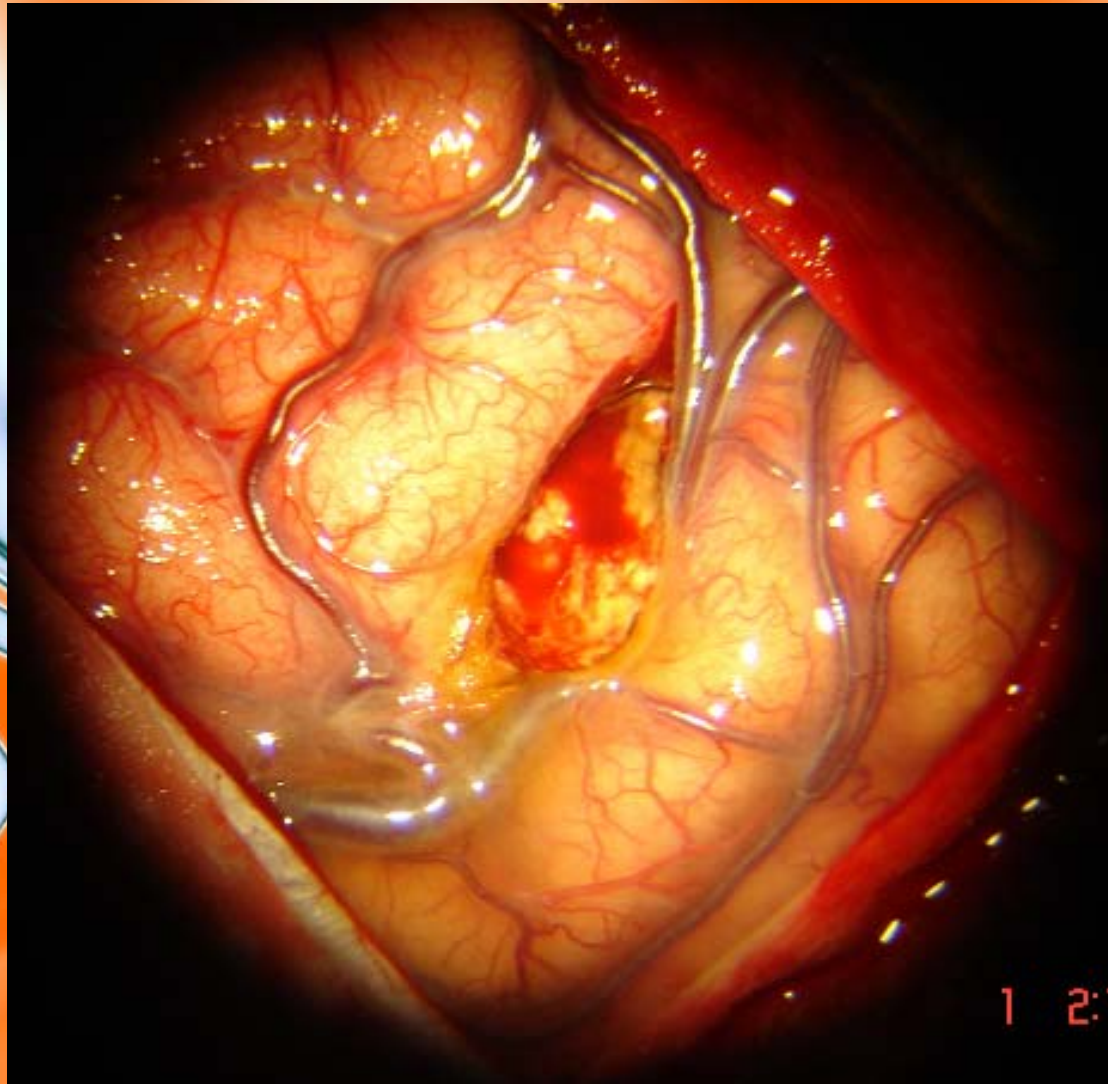
P3-O1

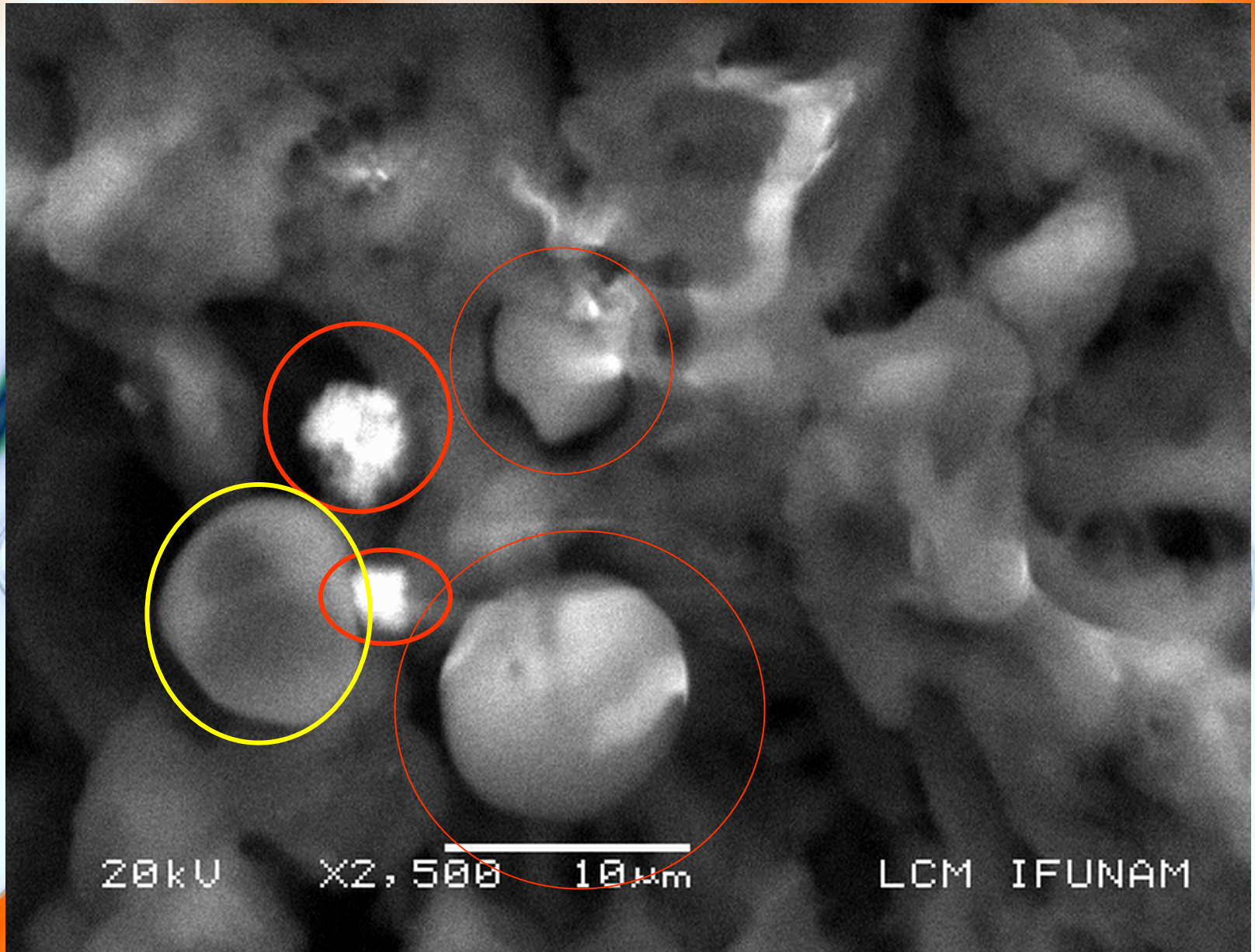


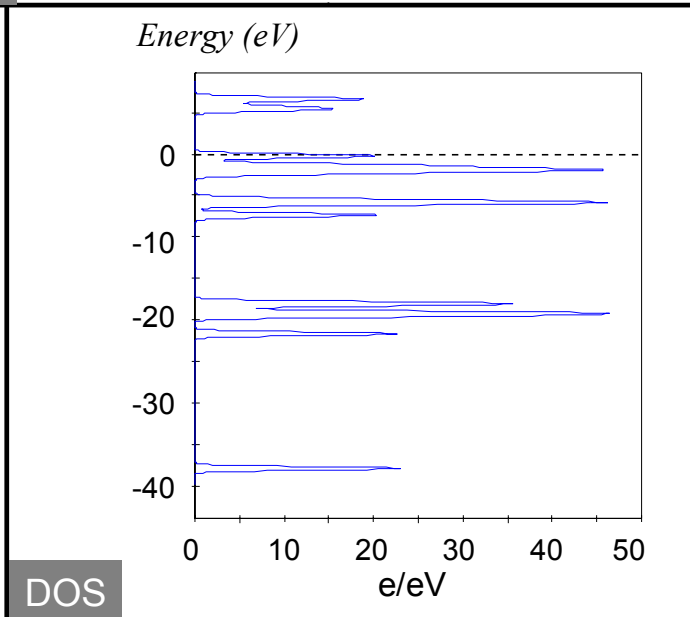
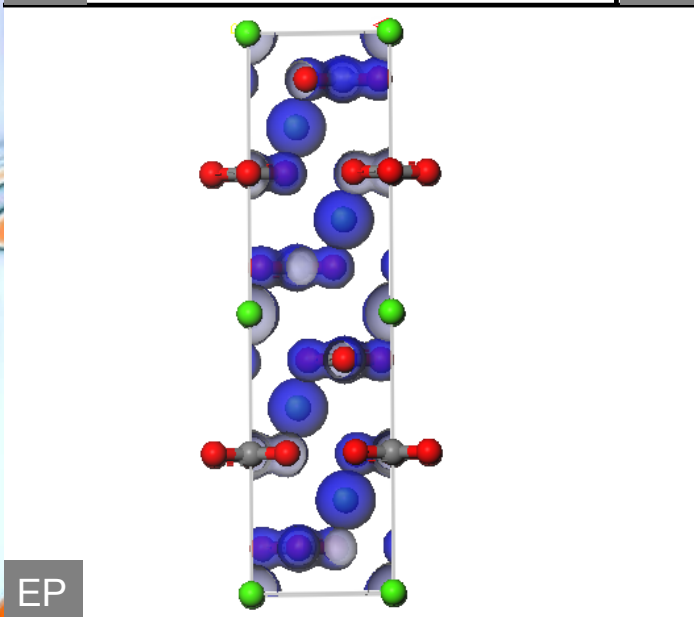
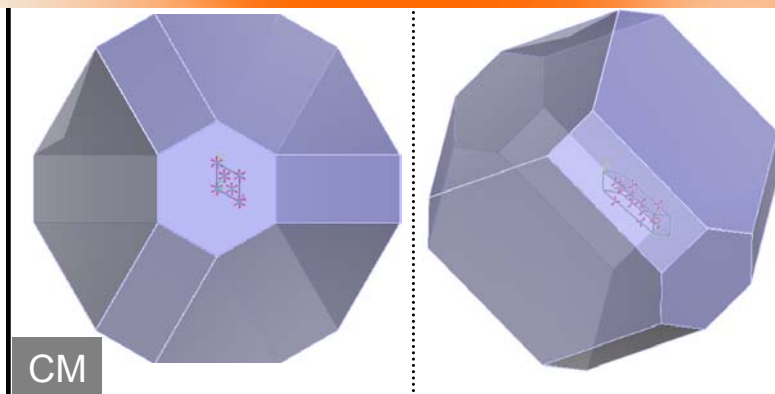
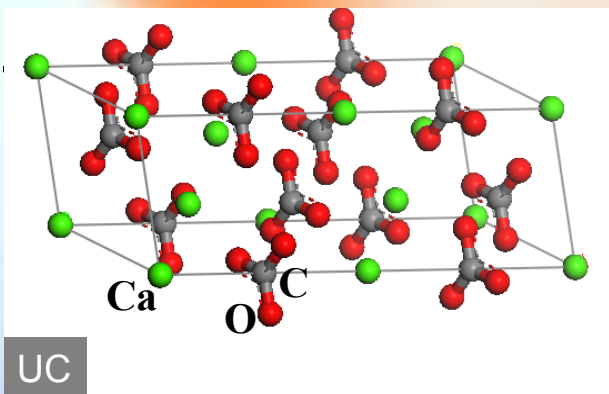
**F 7 TEMPORAL
ANTERIOR**

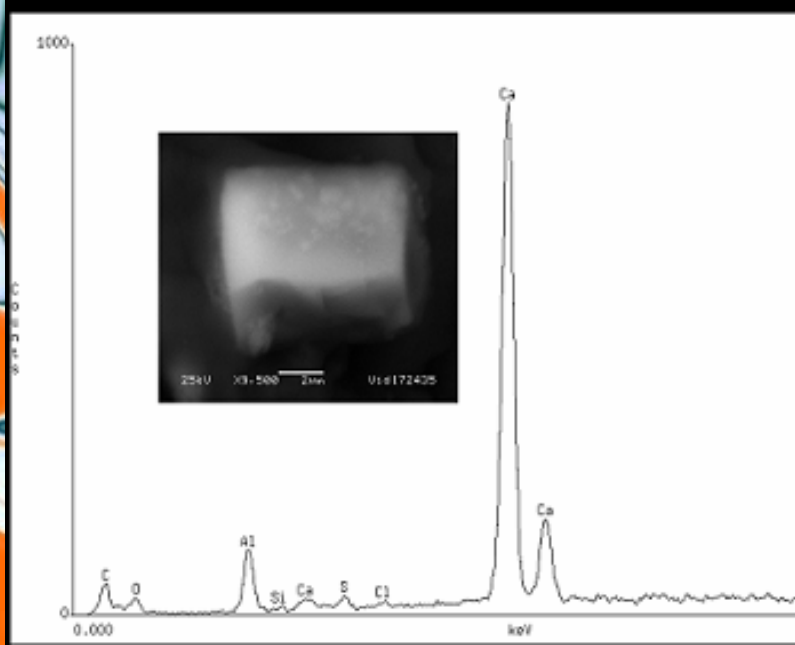
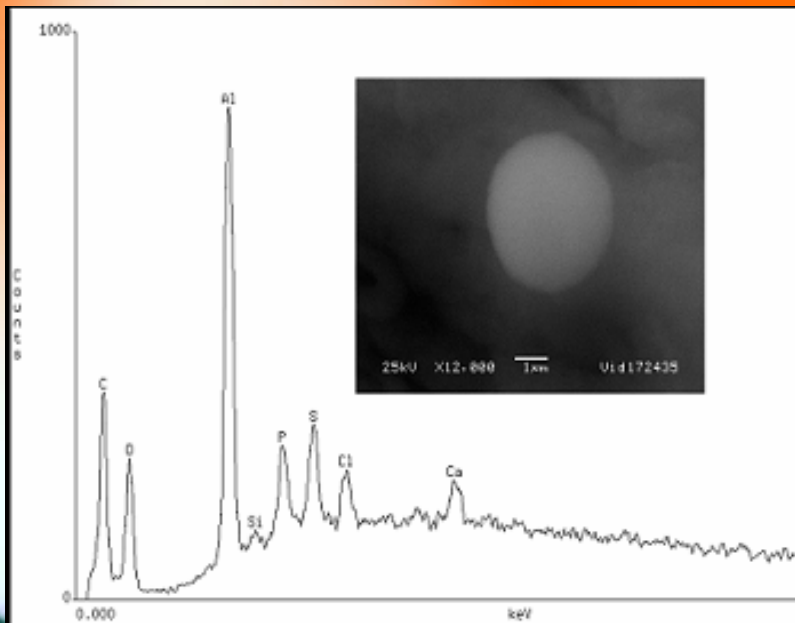




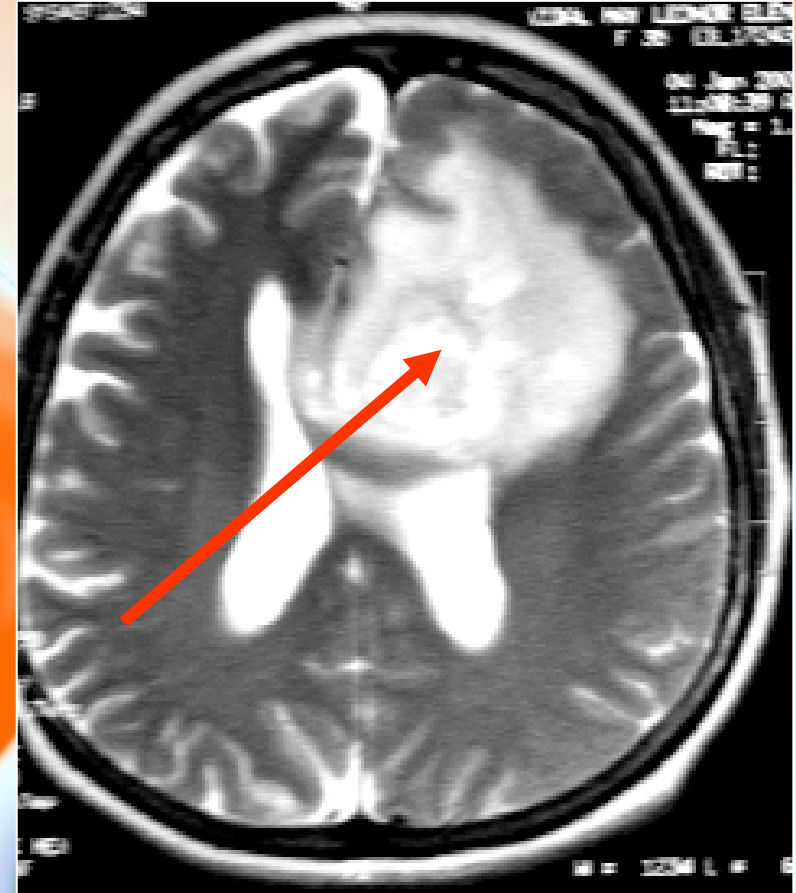


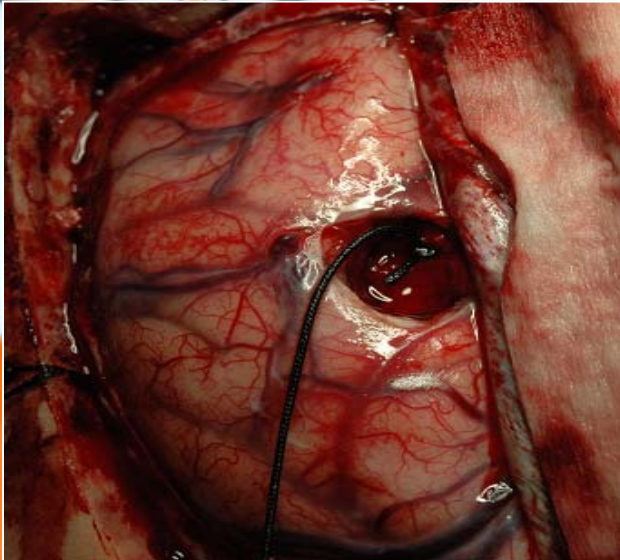
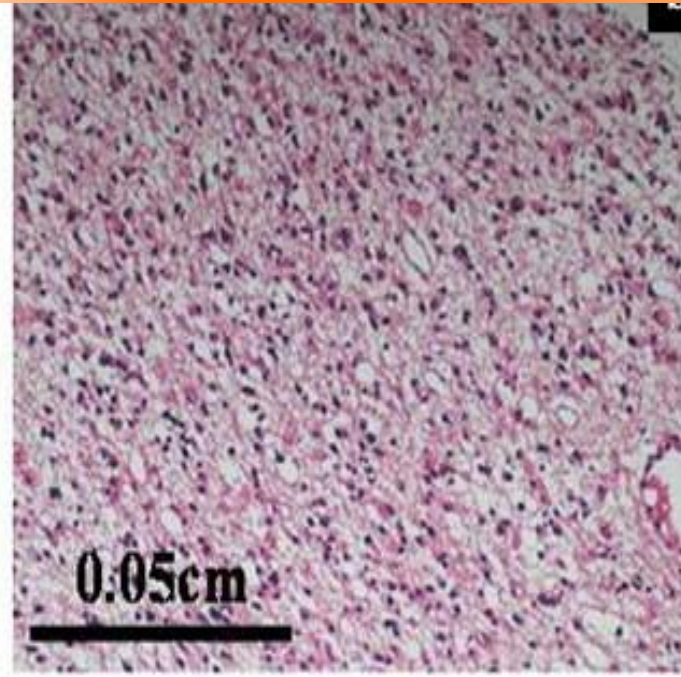




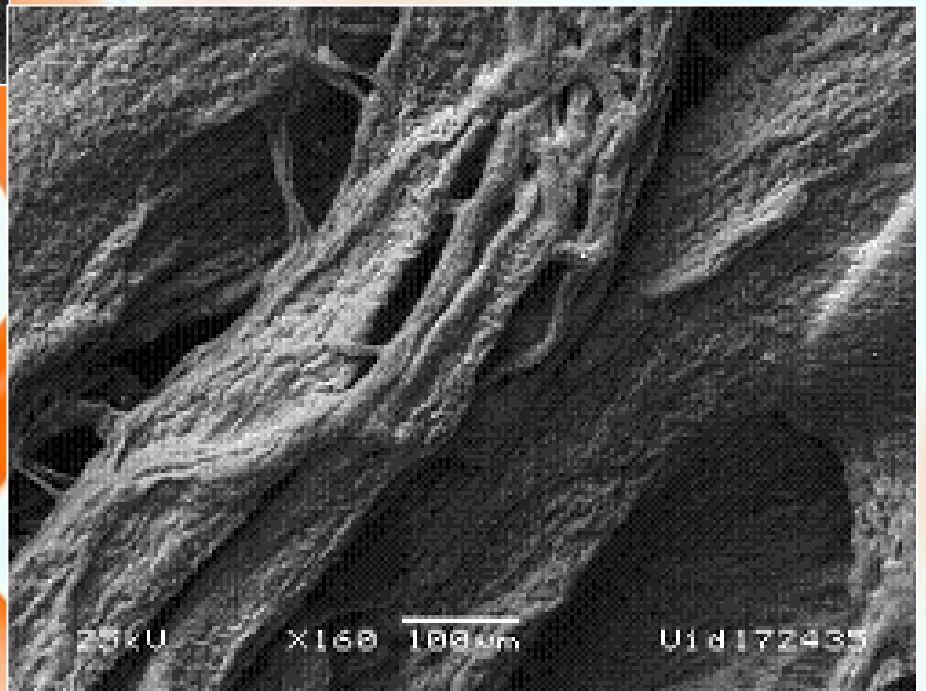
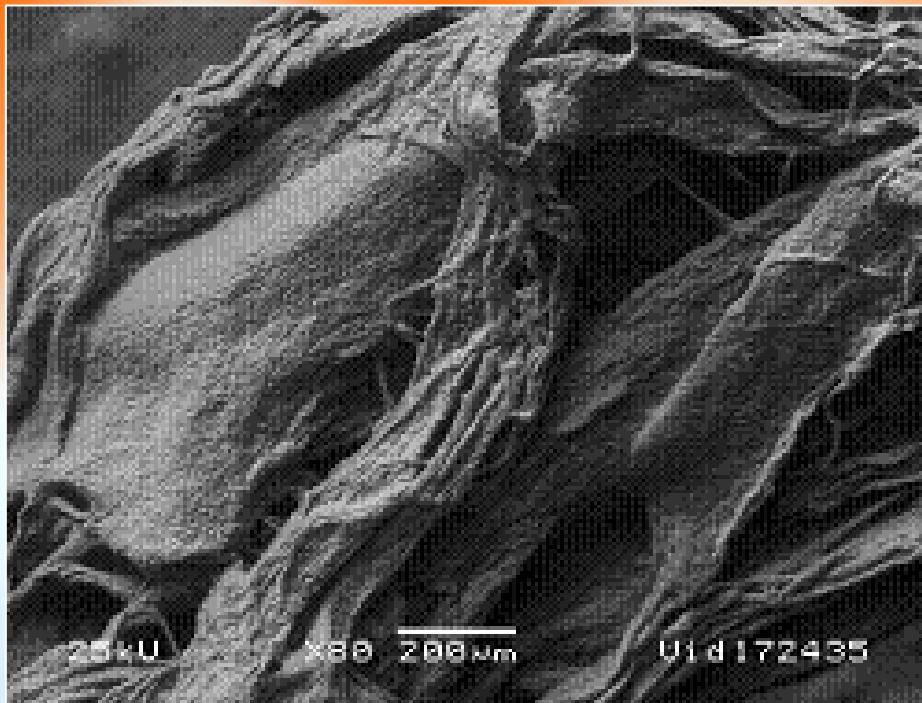


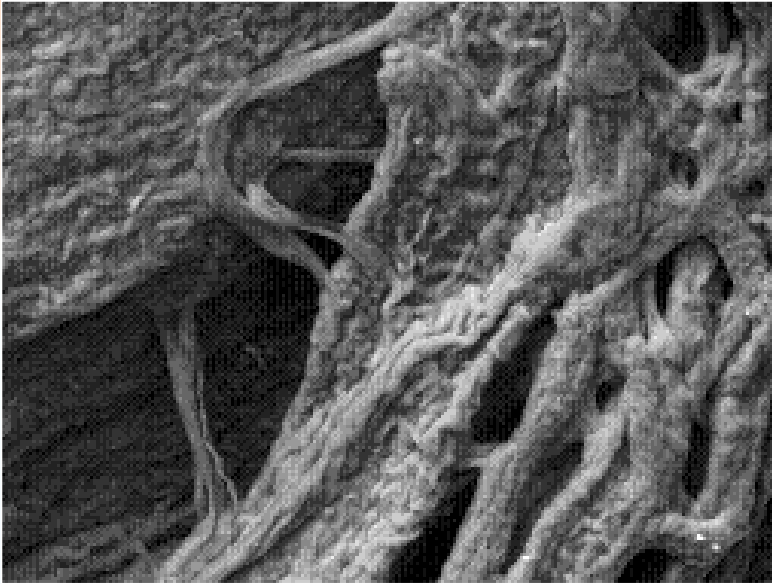
ASTROCITOMA ANAPLÁSICO

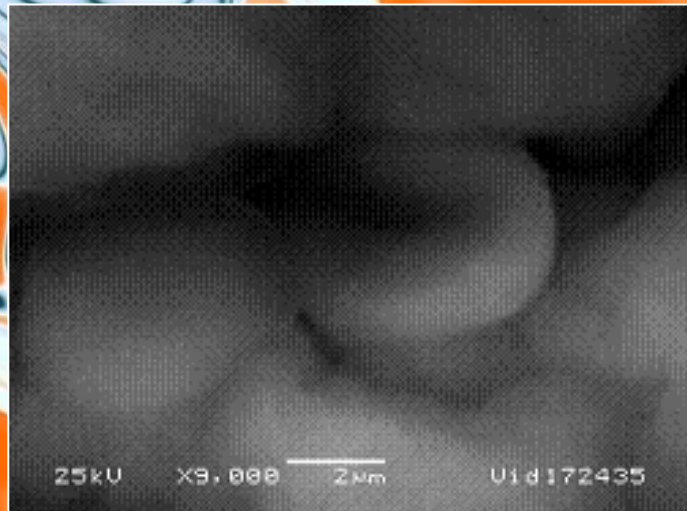
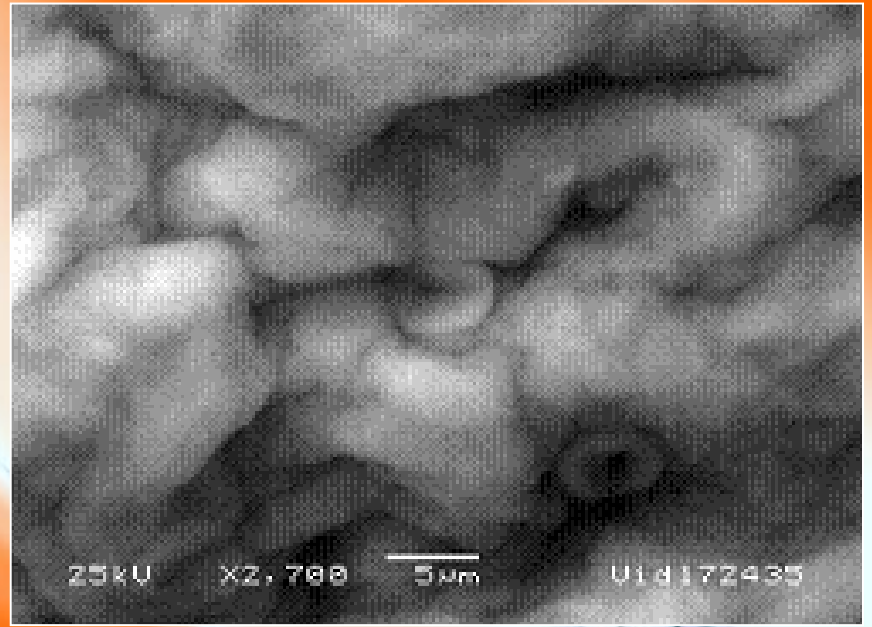
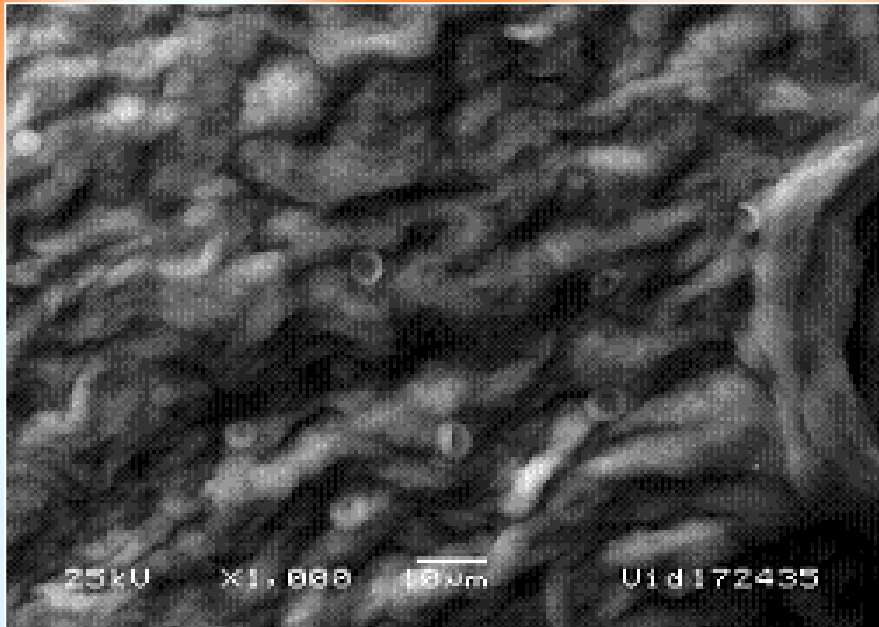




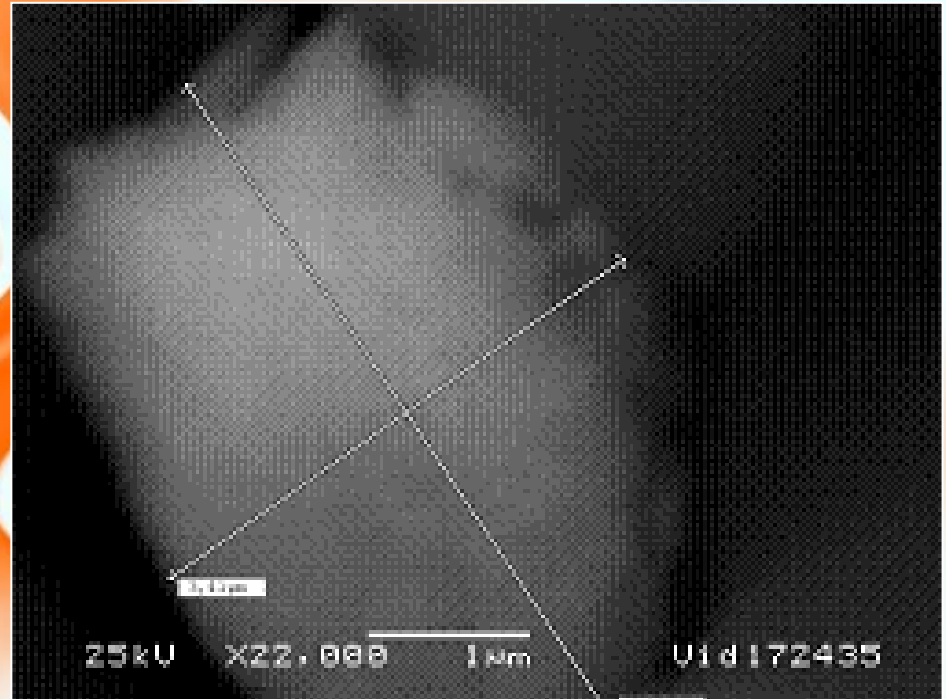
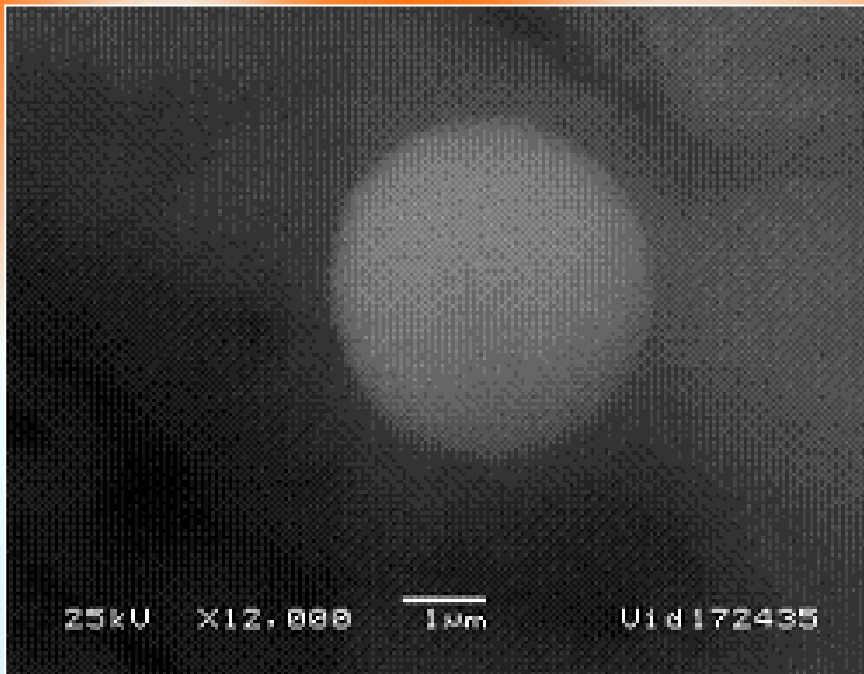


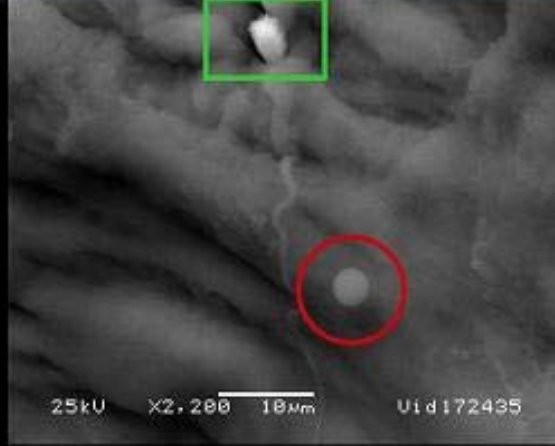
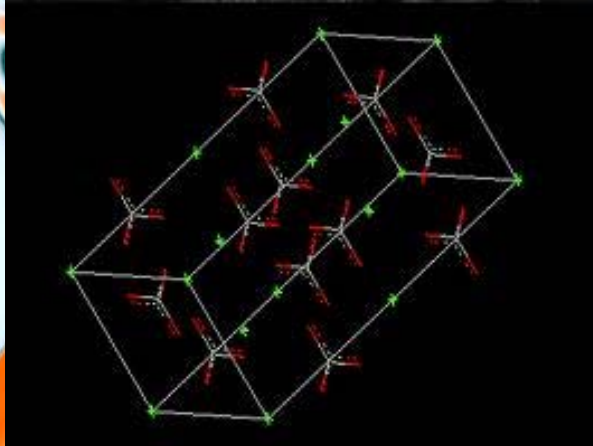


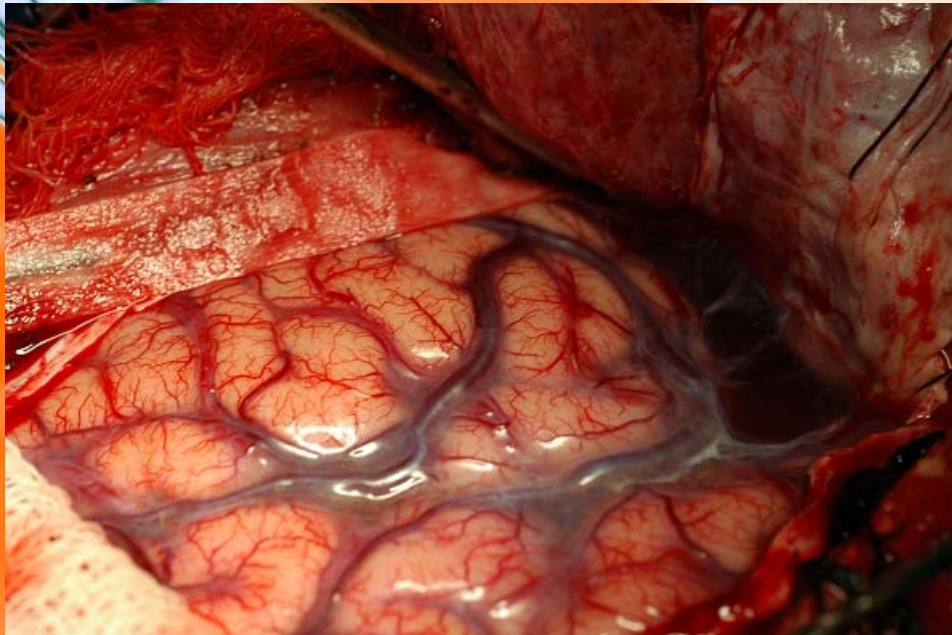
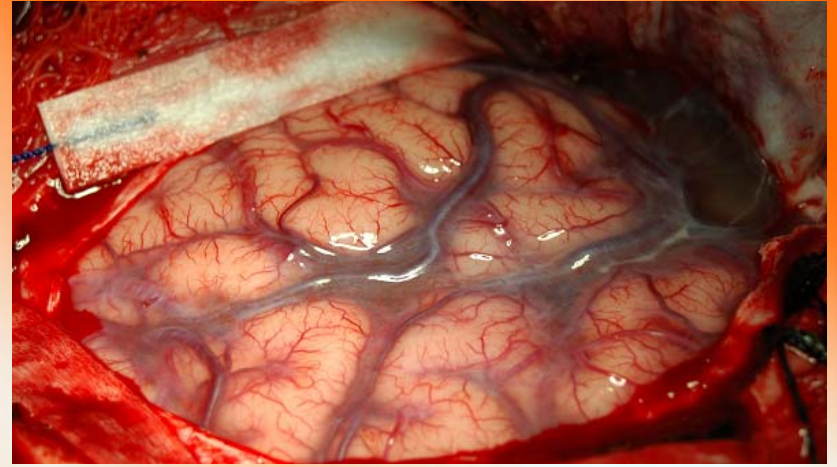
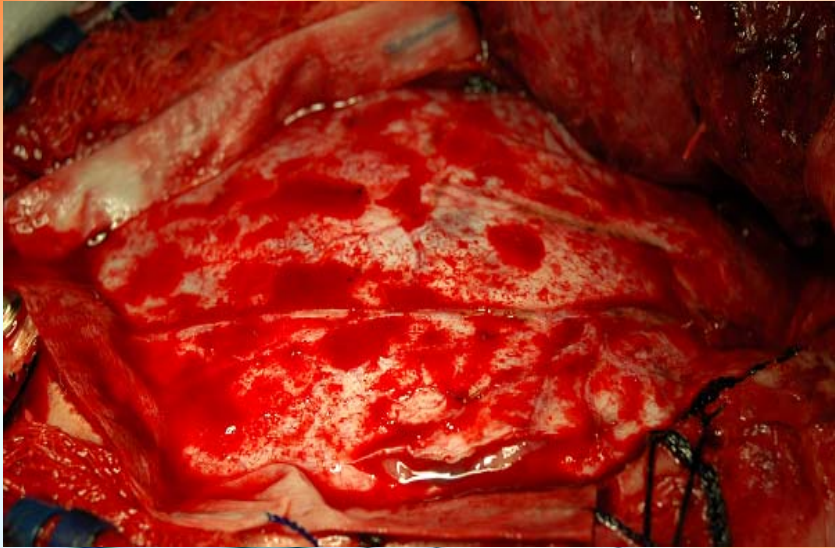




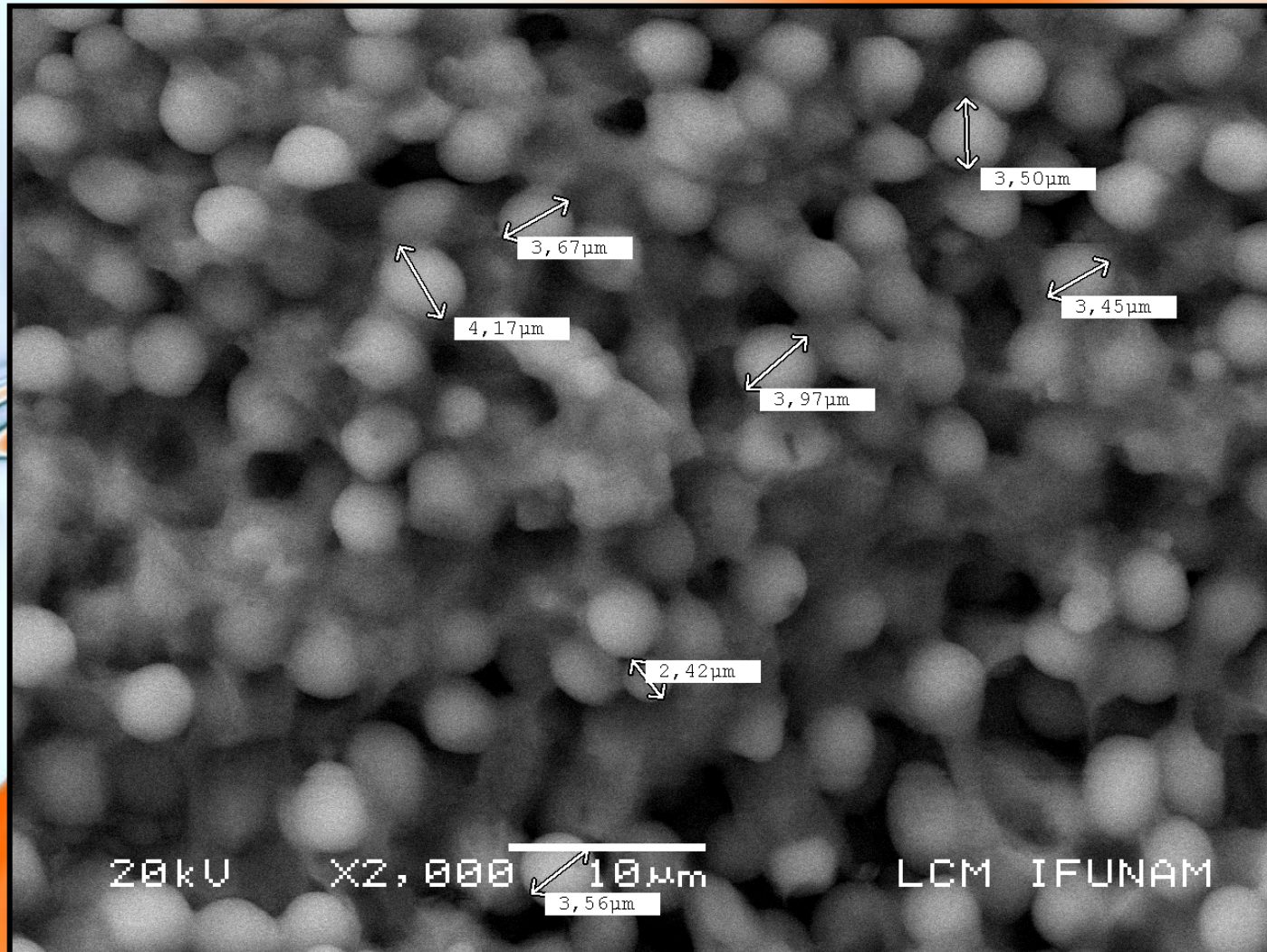


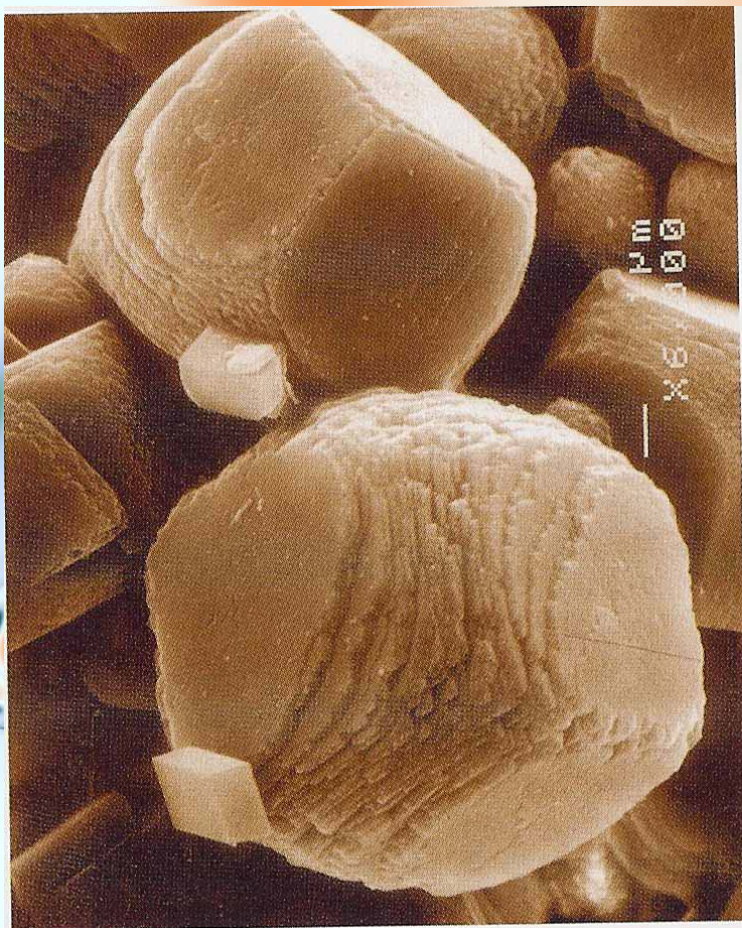


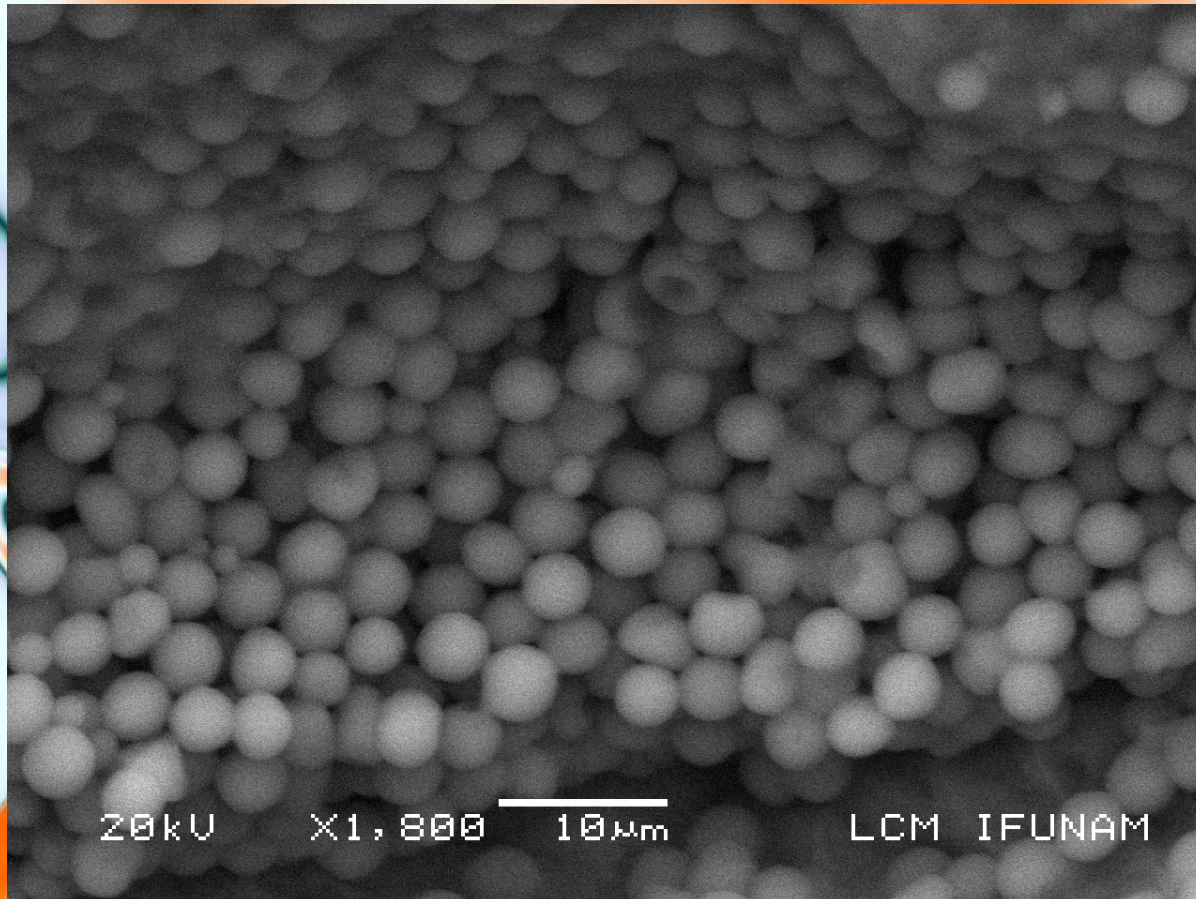


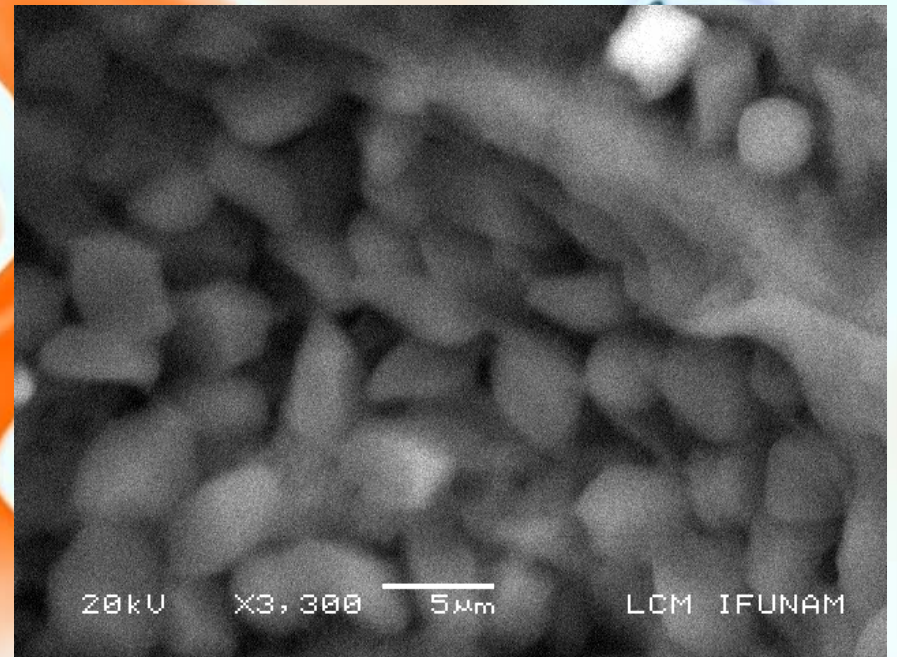
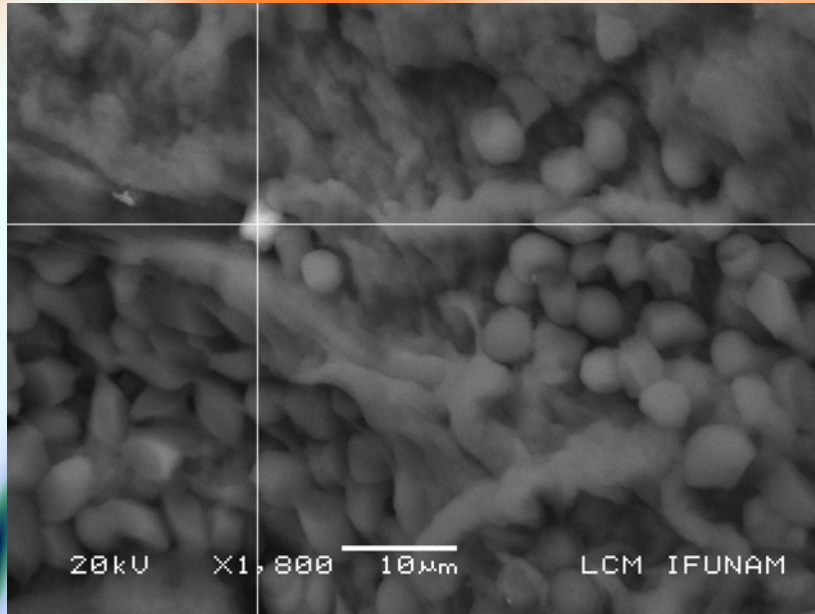


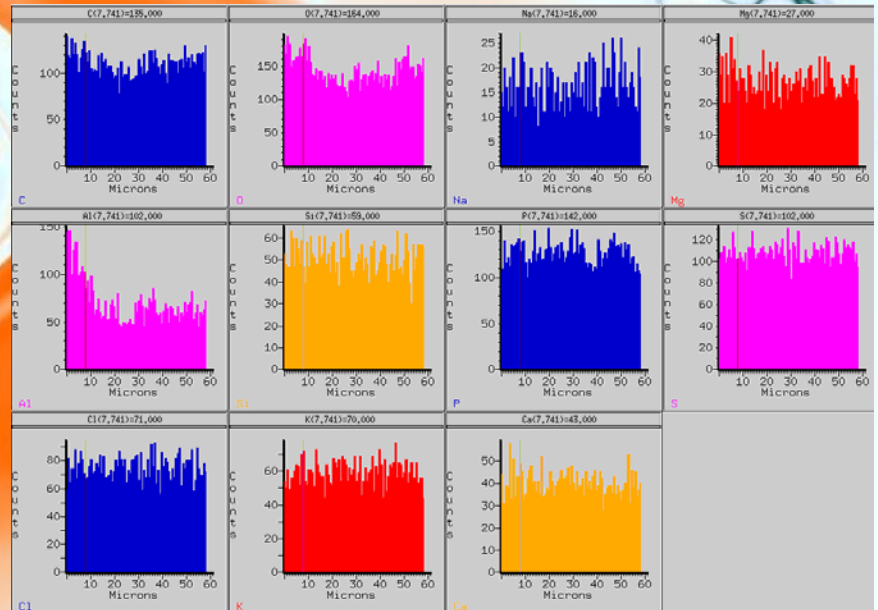
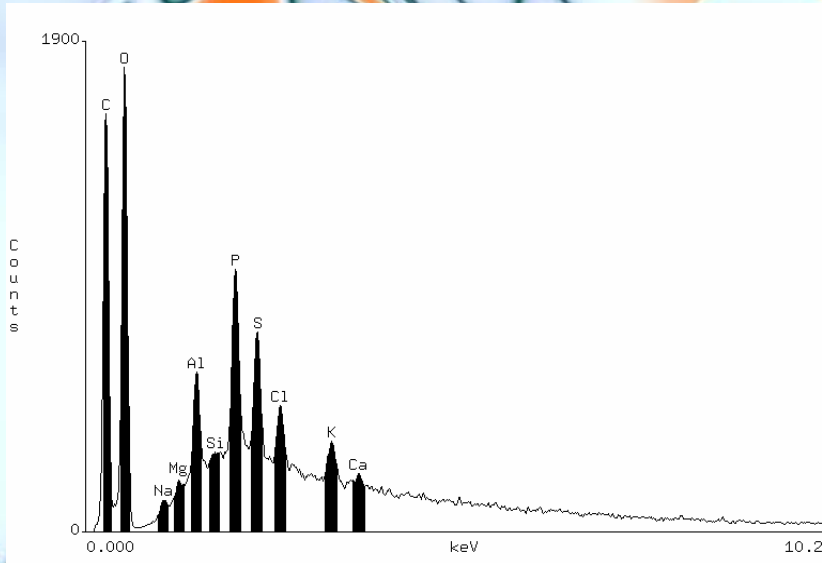
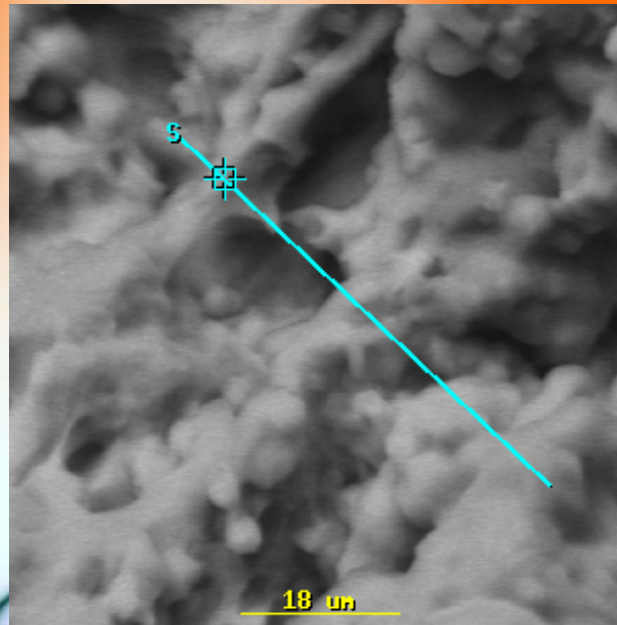
CARCINOMA DE PLEXOS COROIDES







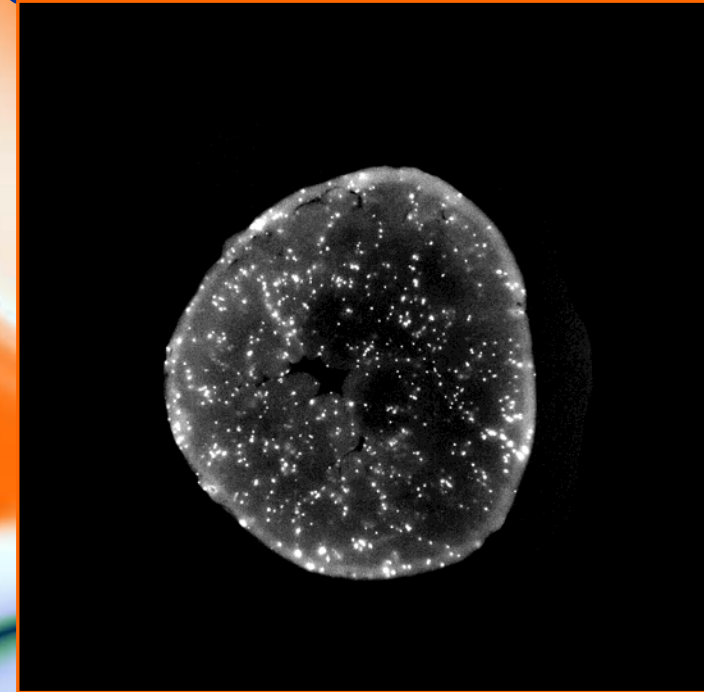




FUTURO:

Visualización del flujo sanguíneo a través del seguimiento de partículas magnéticas

Fluorescencia, partículas de menos de $12\ \mu\text{m}$ por vía intramuscular, muestran una sección transversal de un órgano. Partículas magnéticas de 5 a $8\ \mu\text{m}$ se transportan perfectamente a través de un capilar convencional.



- El seguimiento de partículas magnéticas proporciona una alta resolución espacial, proporcionando información vital sobre la salud de un órgano en el cuerpo humano.
- Se requiere de una buena distribución de las nano-partículas.

**GRACIAS POR SU
ATENCIÓN**

