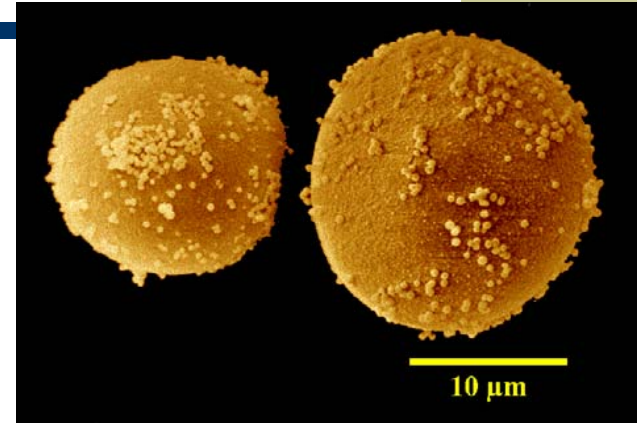
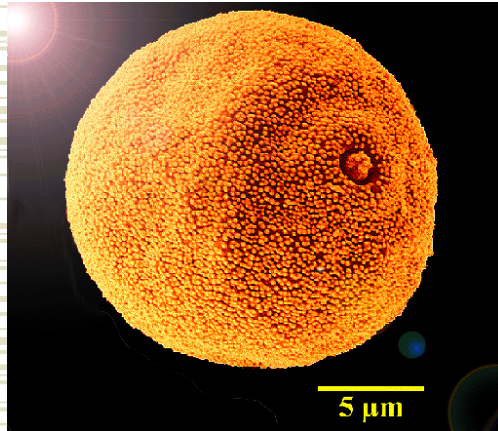


Utilidad Clínica de los Recuentos de Pólenes



Dr. Javier Subiza

Alergólogo
Director de la CLINICA SUBIZA
Excoordinador del Comité de
Aerobiología
de la Sociedad Española
de Alergología



CLINICA SUBIZA

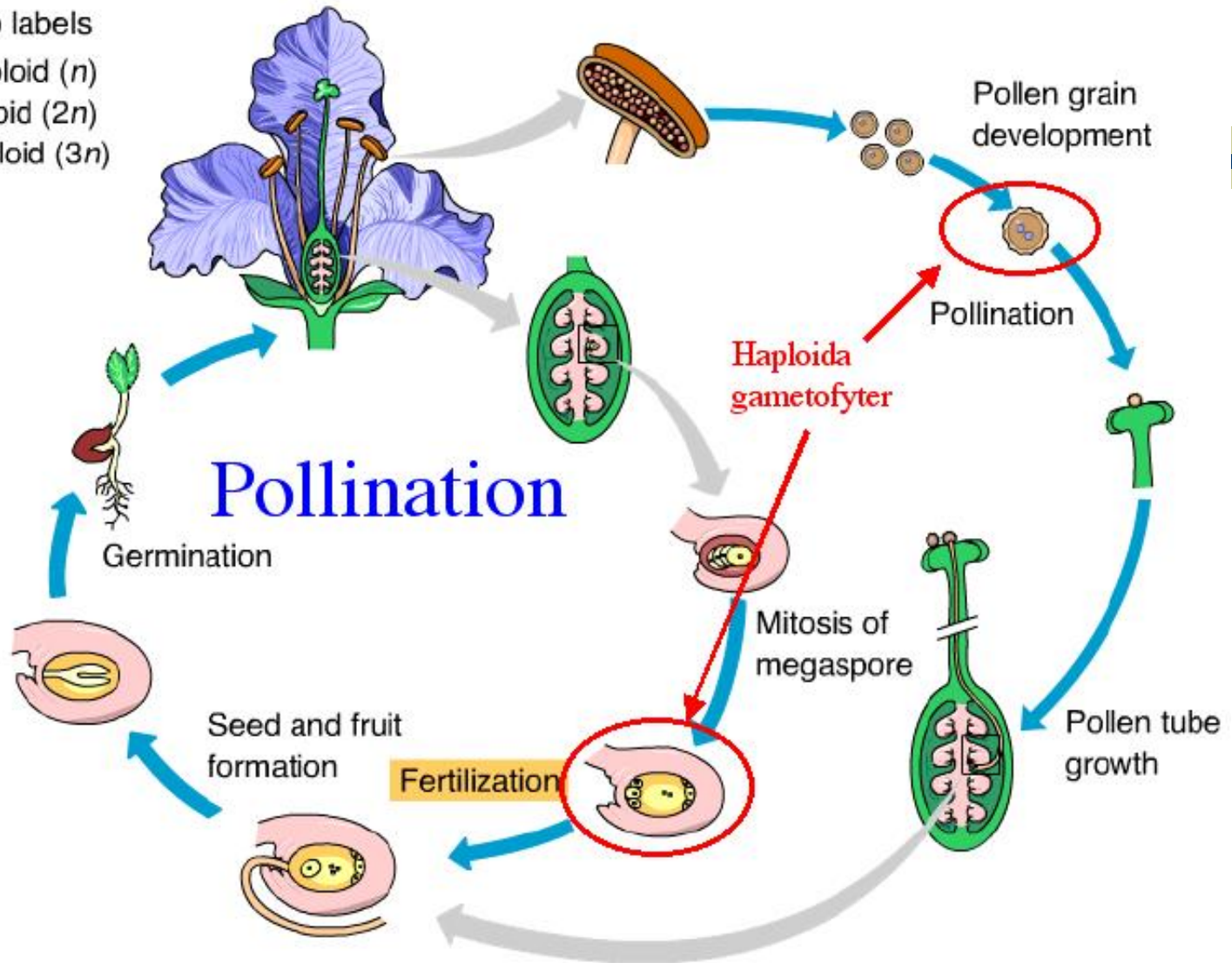


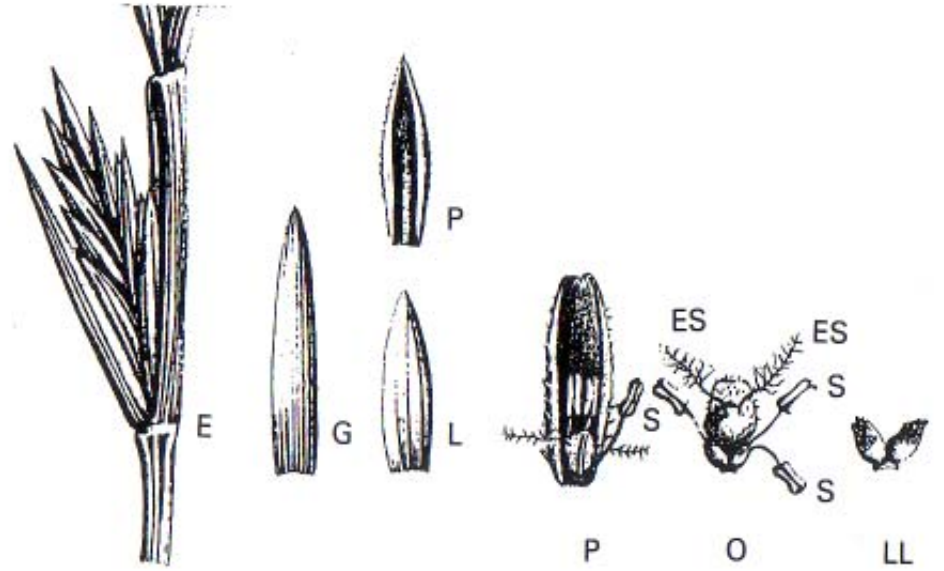
**Recuentos de pólenes
desde 1973**

Polinización

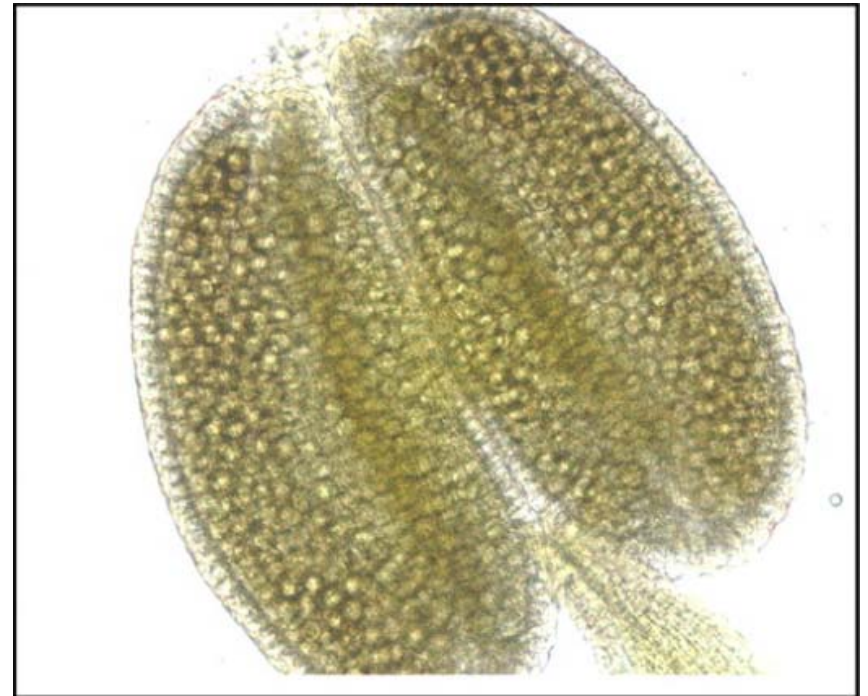
Key to labels

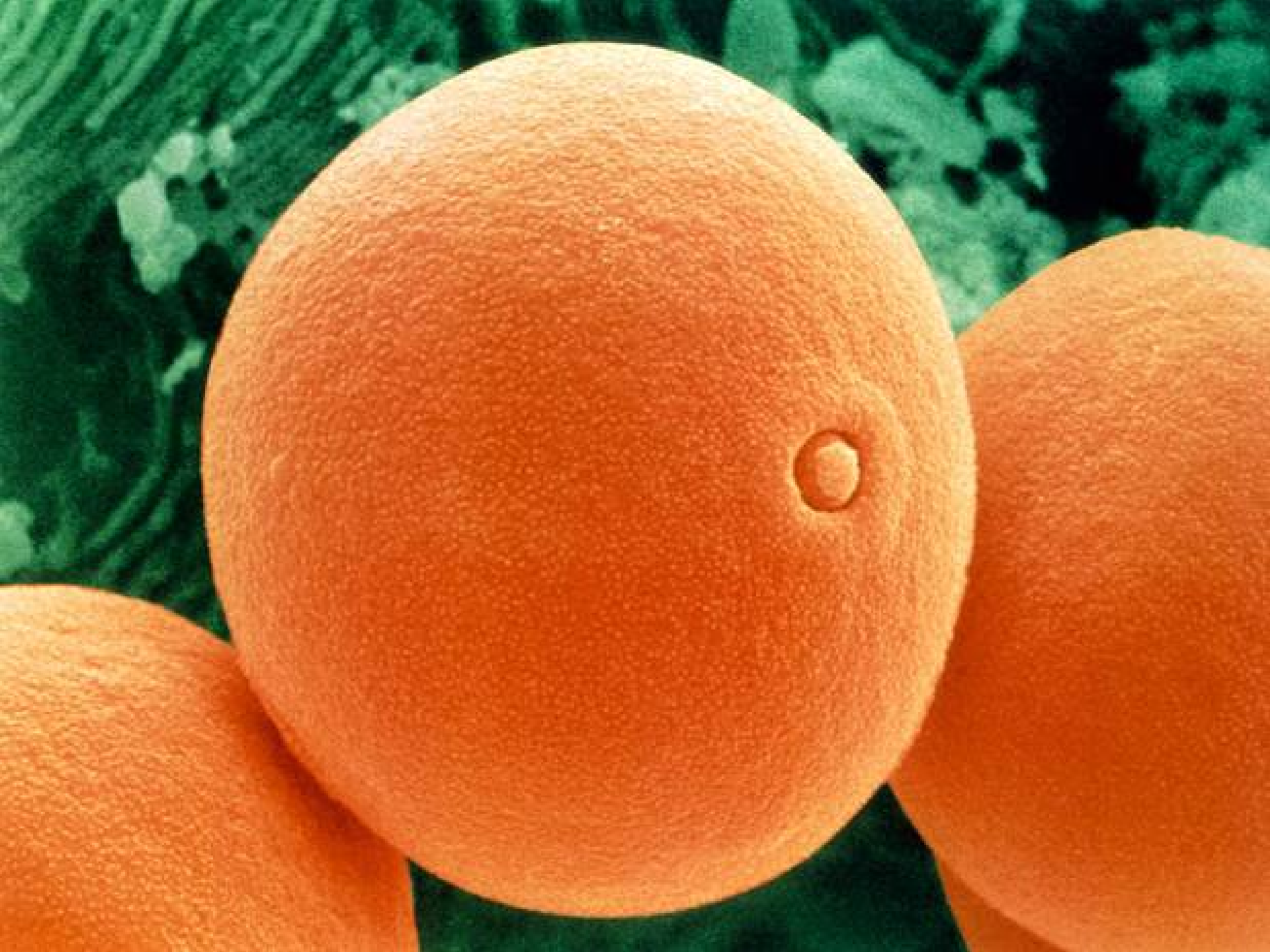
- Haploid (n)
- Diploid ($2n$)
- Triploid ($3n$)





Una antera = 2.500 granos de polen
Una flor tiene 3 anteras = 7.500 granos
Una espiga 10 flores = 75.000 granos
Una espiga 15 espiguillas = 1.125.000 granos





Espermatozoide

Membrana interna

Membrana externa

Citoplasma

Núcleo

Esperma-
tozoide

Célula
vegetativa

Núcleo

Membrana externa

Citoplasma

Mitocondrias

Ribosomas

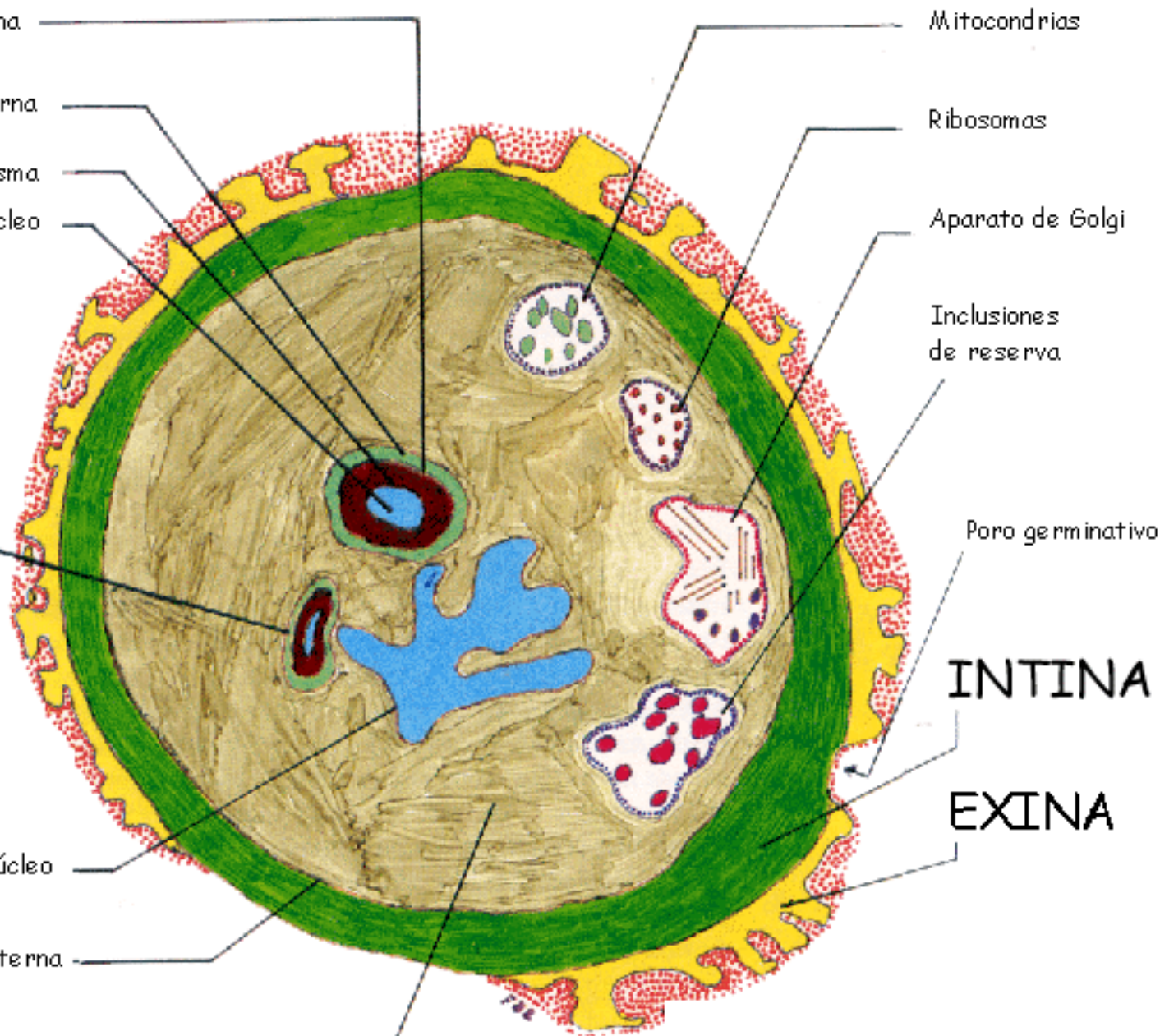
Aparato de Golgi

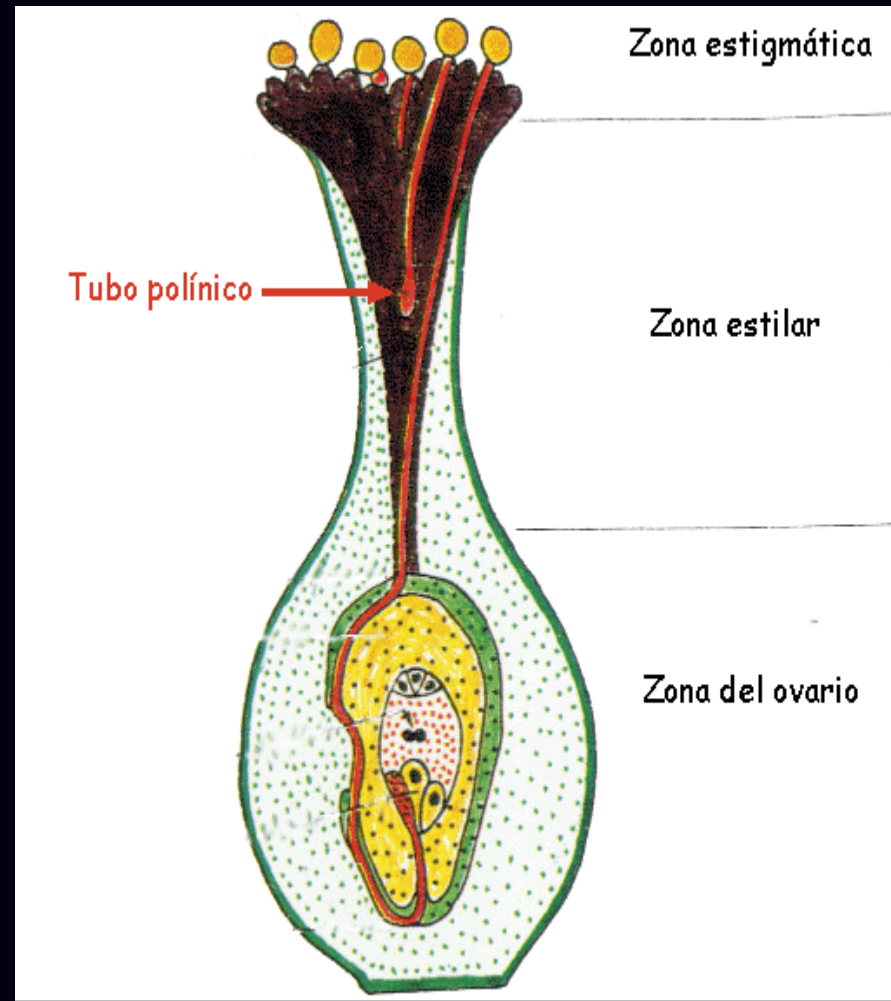
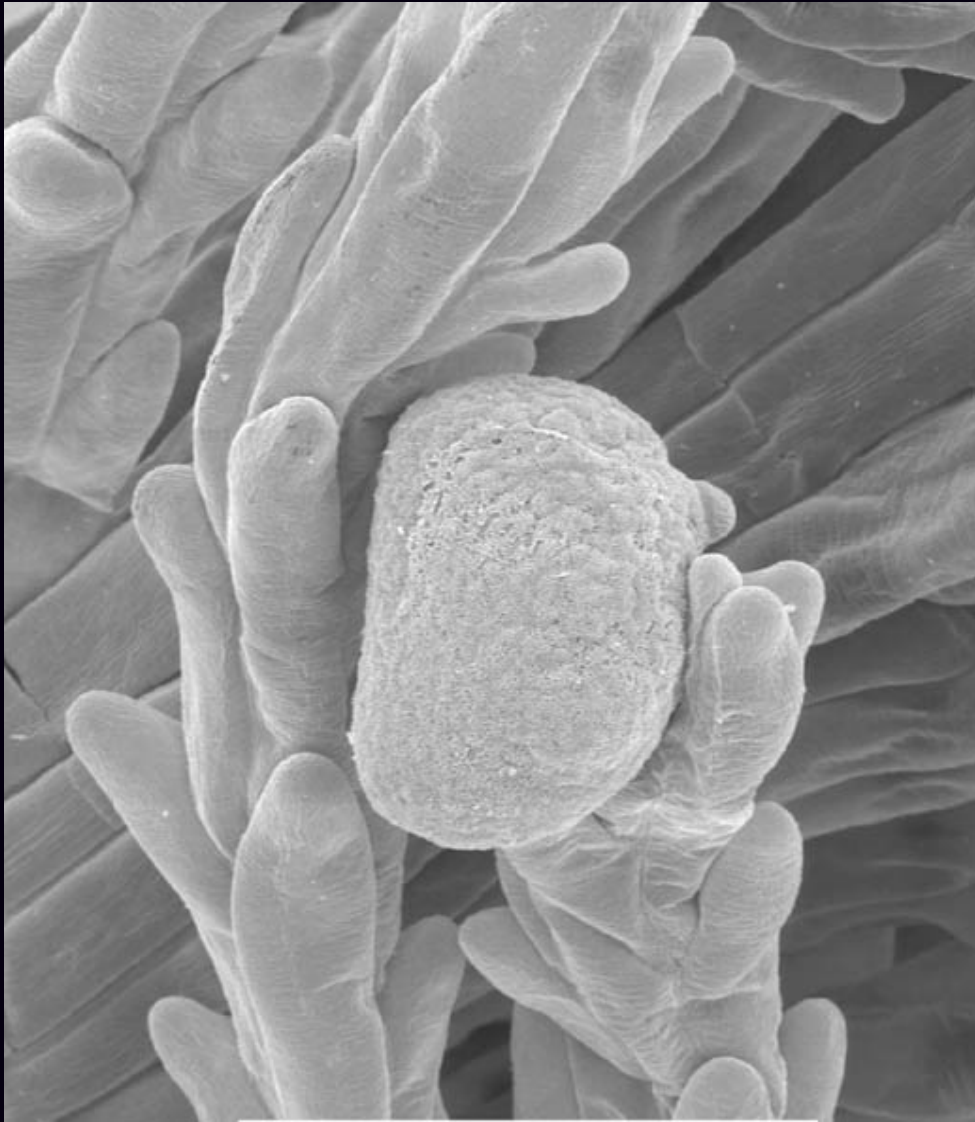
Inclusiones
de reserva

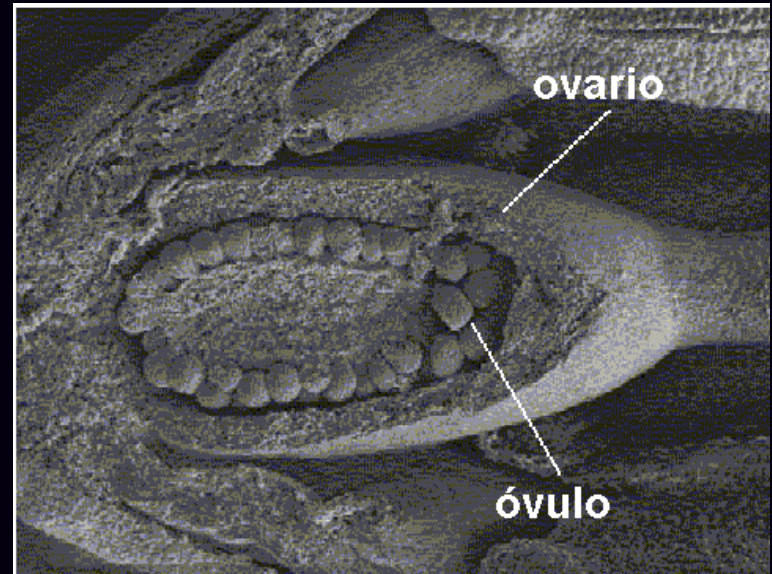
Poro germinativo

INTINA

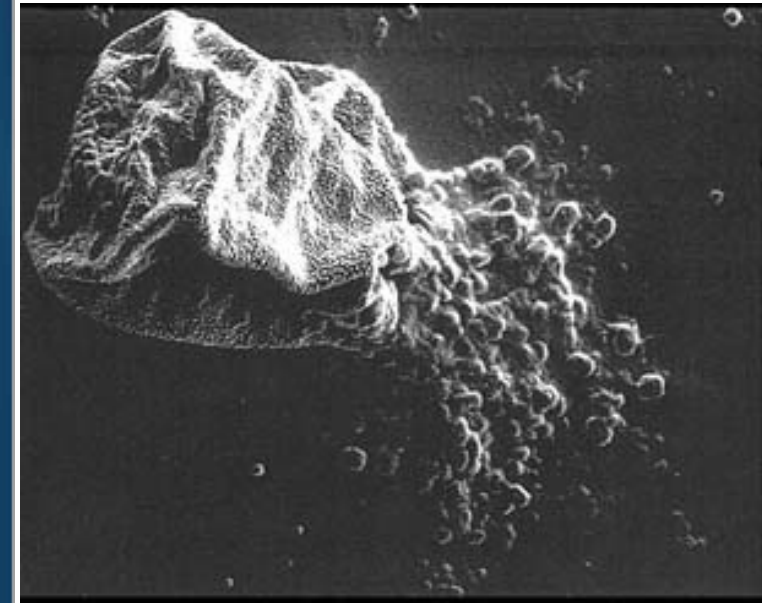
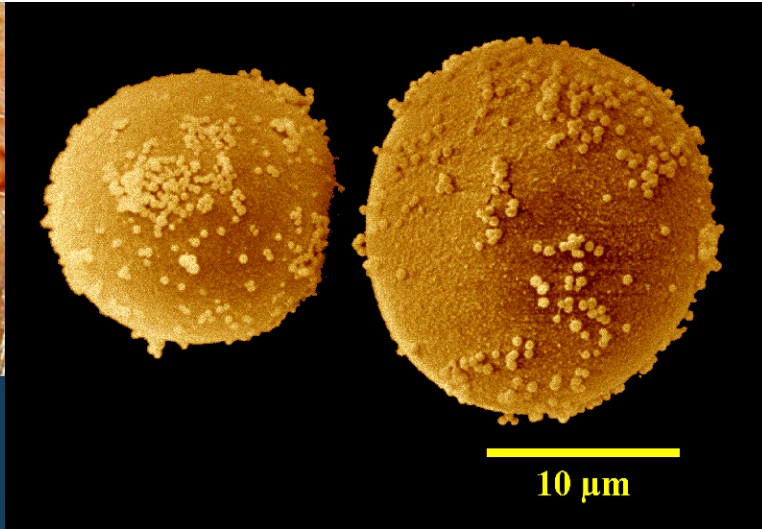
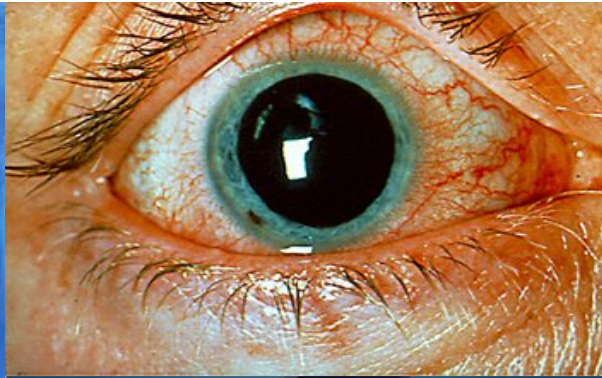
EXINA







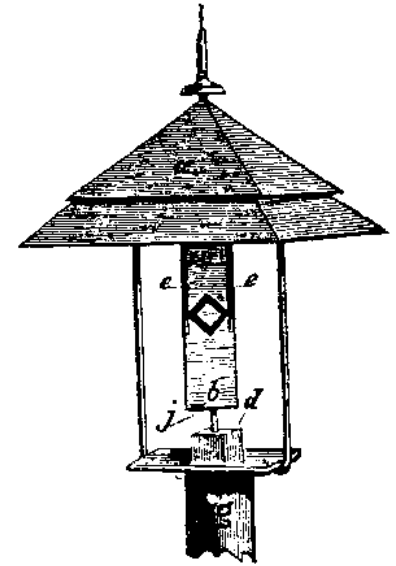
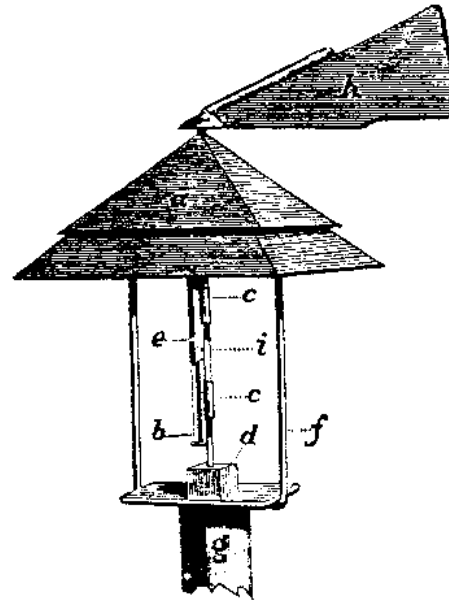
Polinosis



Charles Blackley (1873): Experimental Researches on the Causes and Nature of Catarrhus Aestivus



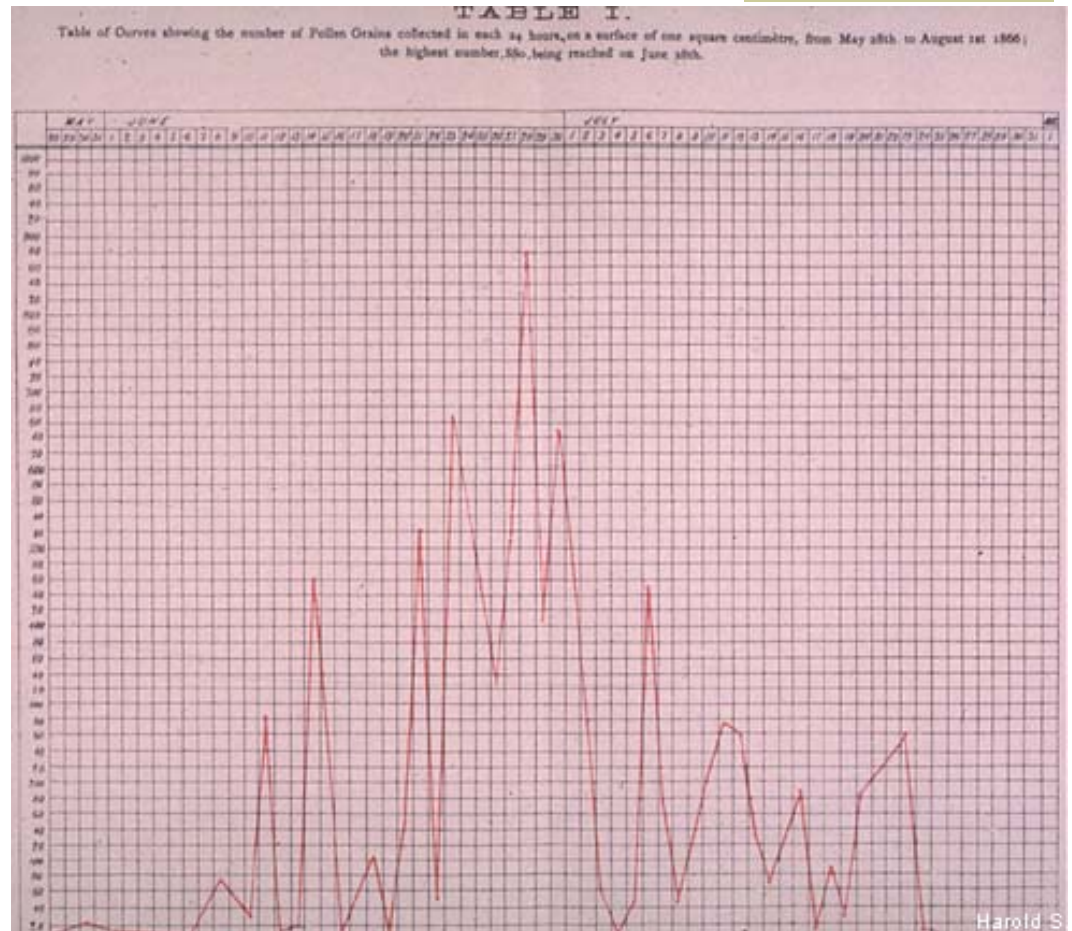
- Inventó un colector de pólenes
- Correlacionó los recuentos con los síntomas
- Realizó provocaciones nasales
- Realizó pruebas cutáneas




Charles Blackley (1873): Experimental Researches on the Causes and Nature of Catarrhus Aestivus



- Inventó un colector de pólenes
- Correlacionó los recuentos con los síntomas
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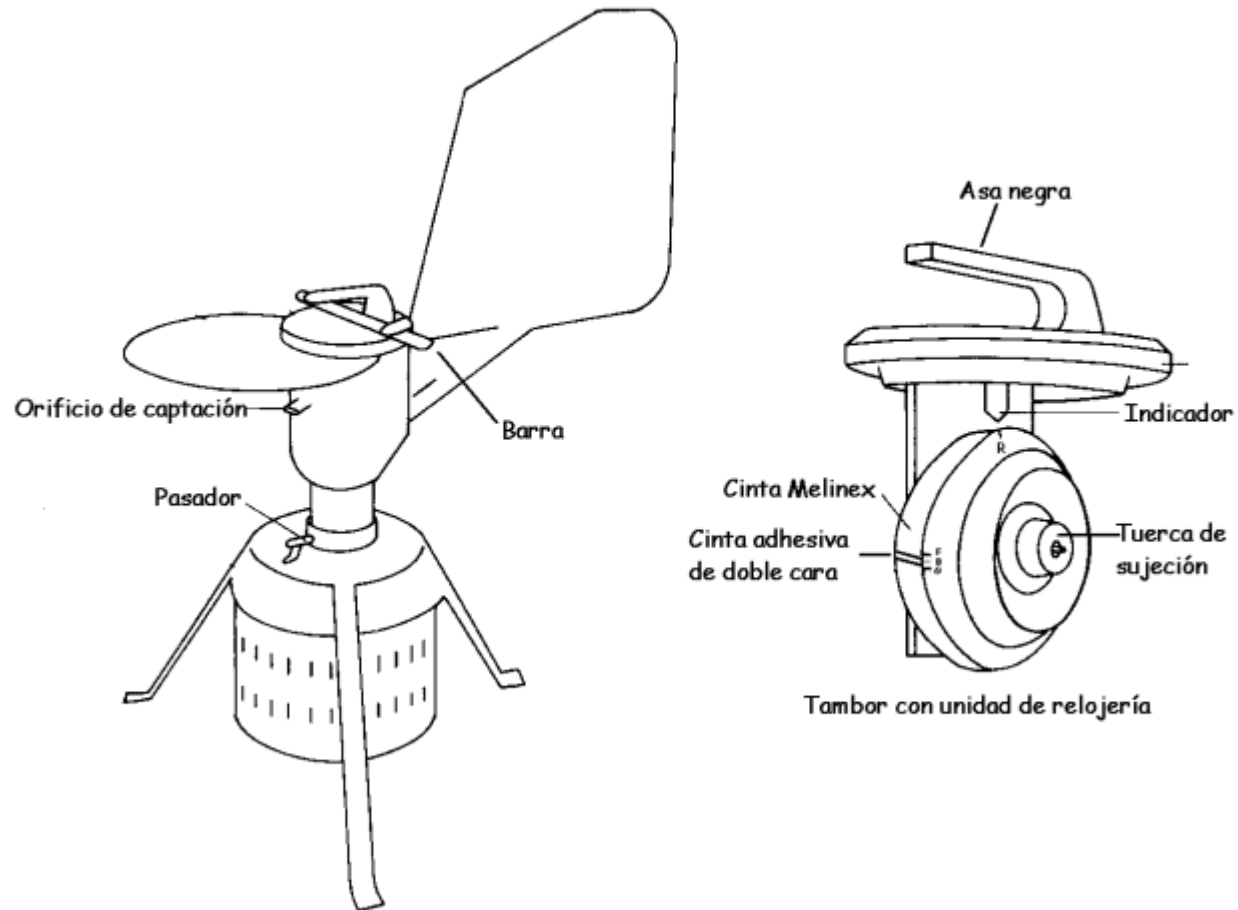




¿Cómo hacemos
en la actualidad los
recuentos de
pólenes?

Burkard Seven Day Volumetric Spore-Trap[®]

1977





Burkard Seven Day Volumetric Spore-Trap[®]

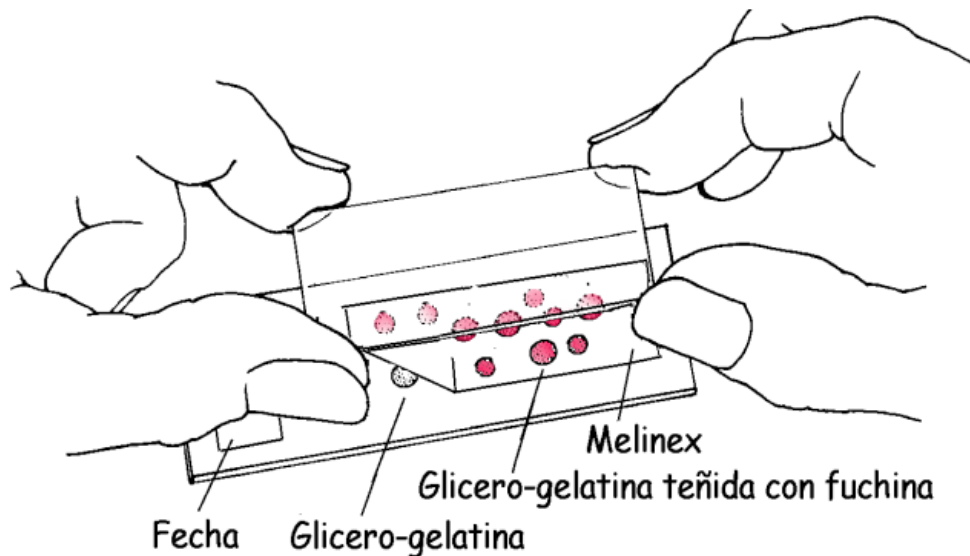
1977

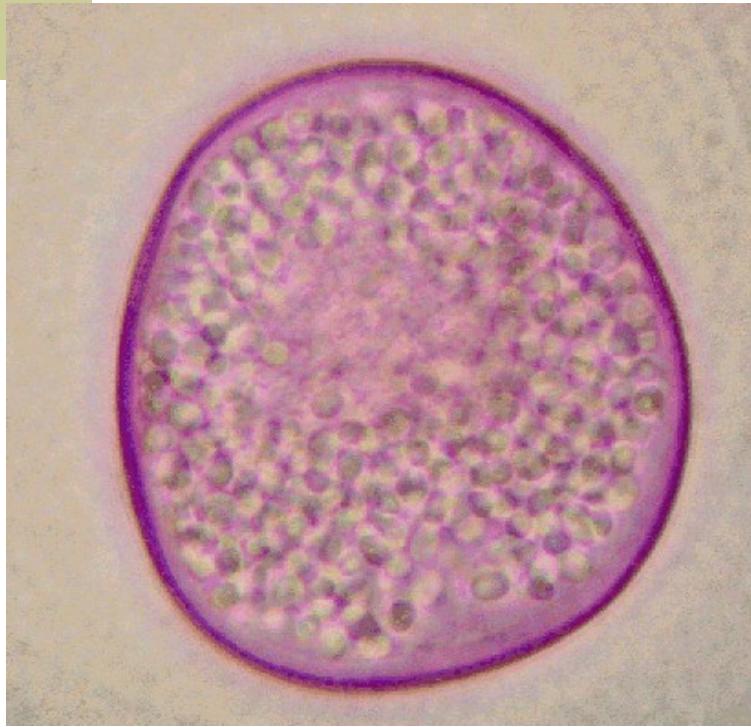
Solución de fuchina 0,5%

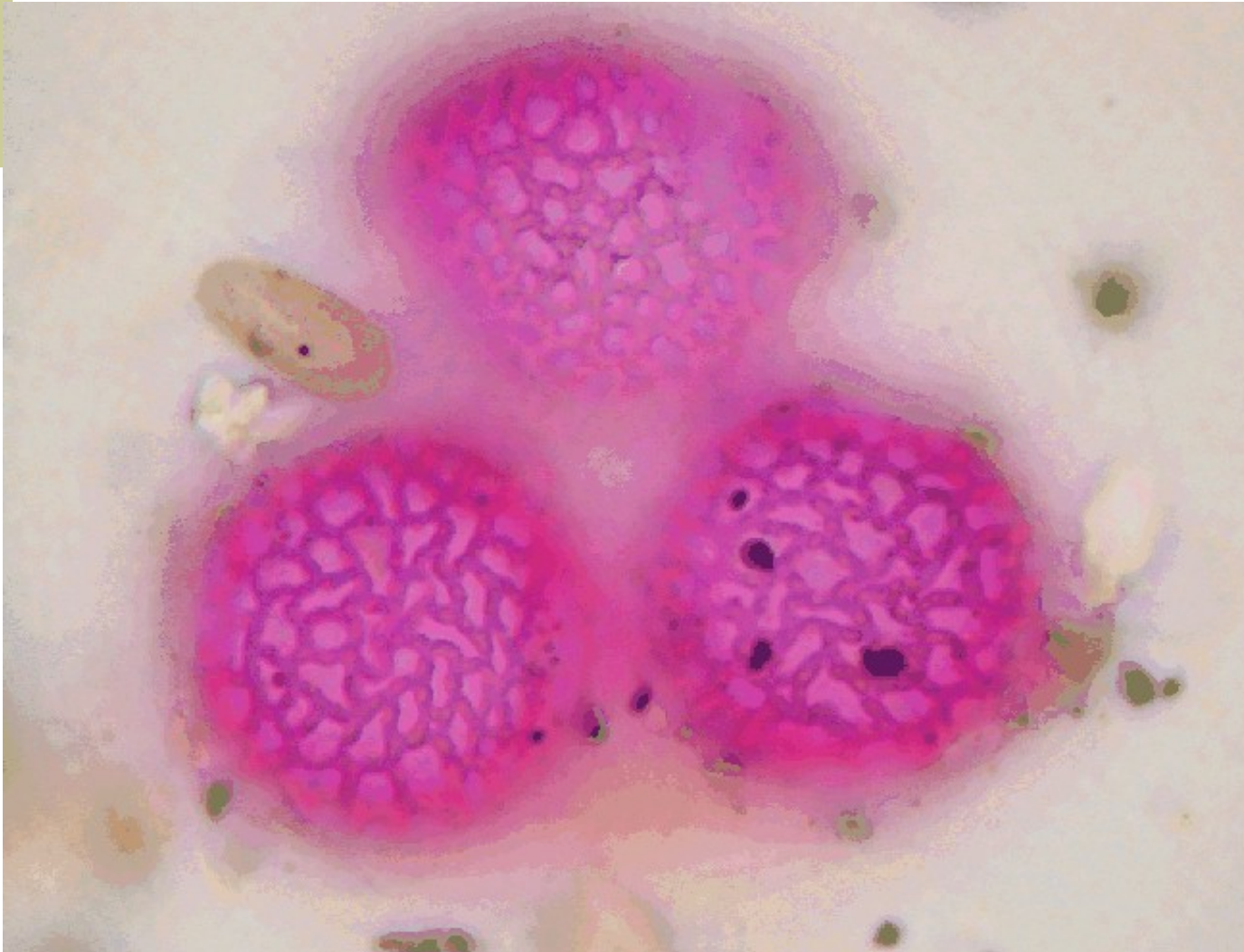
Fuchina básica	1 gr.
Etanol 96%	100 ml
H ₂ O	100 ml

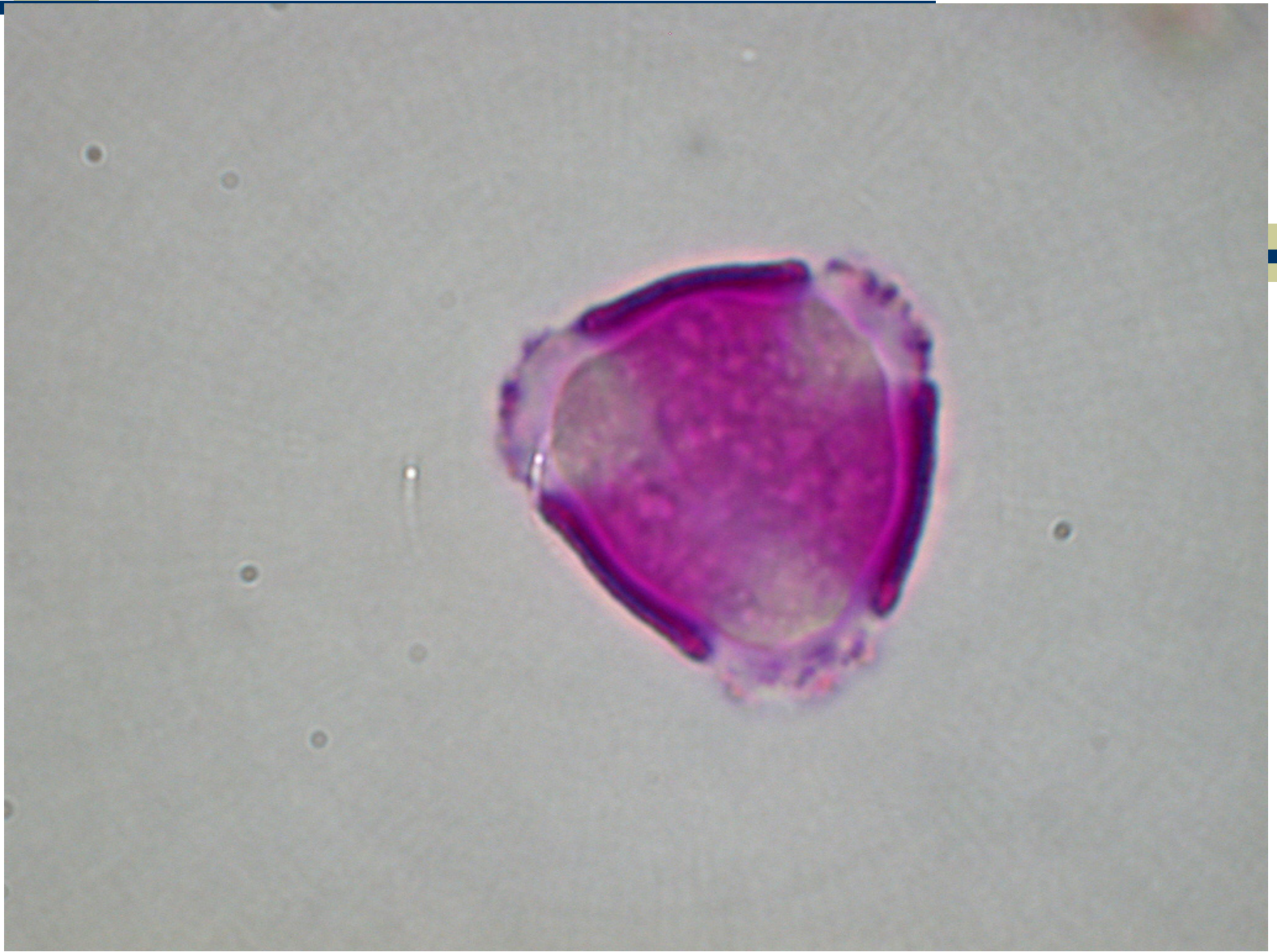
Glicero-gelatina teñida con fuchina:

Poner 3-4 gotas de la solución de fuchina 0,5% en 10 ml de glicerogelatina

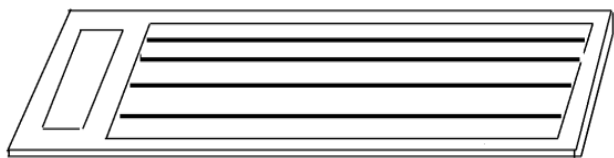




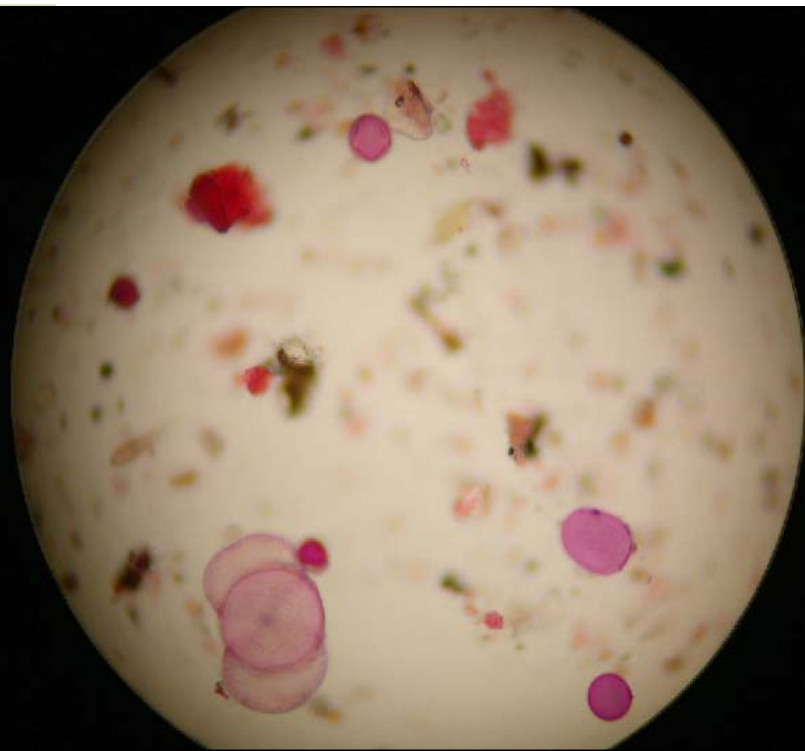




Burkard (recuento)



4 barridos de 48 mm





COMITÉ DE AEROBIOLOGÍA

[Home](#)

[Quienes somos](#)

[Pólenes Alergénicos en España](#)

[Interpretación de recuentos de pólenes](#)

[Gráficas de concentraciones de pólenes](#)

[Gráficas globales de concentraciones de pólenes](#)

[Datos numéricos](#)

[Estudio Multicéntrico](#)

[Polinosis en España](#)

[Preguntas frecuentes](#)

[Enlaces de interés](#)

[Agradecimientos](#)

[Atlas Aerobiología y Polinosis](#)

[Change language](#)

RECUENTO DE PÓLENES



Visitante: **595778**

Gráficas de concentraciones de pólenes

Seleccionar todos

<input type="checkbox"/> Cupresáceas	<input type="checkbox"/> Palmáceas	<input type="checkbox"/> Rumex	<input type="checkbox"/> Mercurialis	<input type="checkbox"/> Morus
<input type="checkbox"/> Urticáceas	<input type="checkbox"/> Alnus	<input type="checkbox"/> Betula	<input type="checkbox"/> Carex	<input type="checkbox"/> Fraxinus
<input type="checkbox"/> Quercus	<input type="checkbox"/> Olea	<input type="checkbox"/> Pinus	<input type="checkbox"/> Ulmus	<input type="checkbox"/> Castanea
<input type="checkbox"/> Populus	<input checked="" type="checkbox"/> Gramíneas	<input type="checkbox"/> Queno-Amaran	<input type="checkbox"/> Platanus	<input type="checkbox"/> Plantago
<input type="checkbox"/> Artemisia	<input type="checkbox"/> Alternaria	<input type="checkbox"/> Síntomas	<input type="checkbox"/> Medicación	

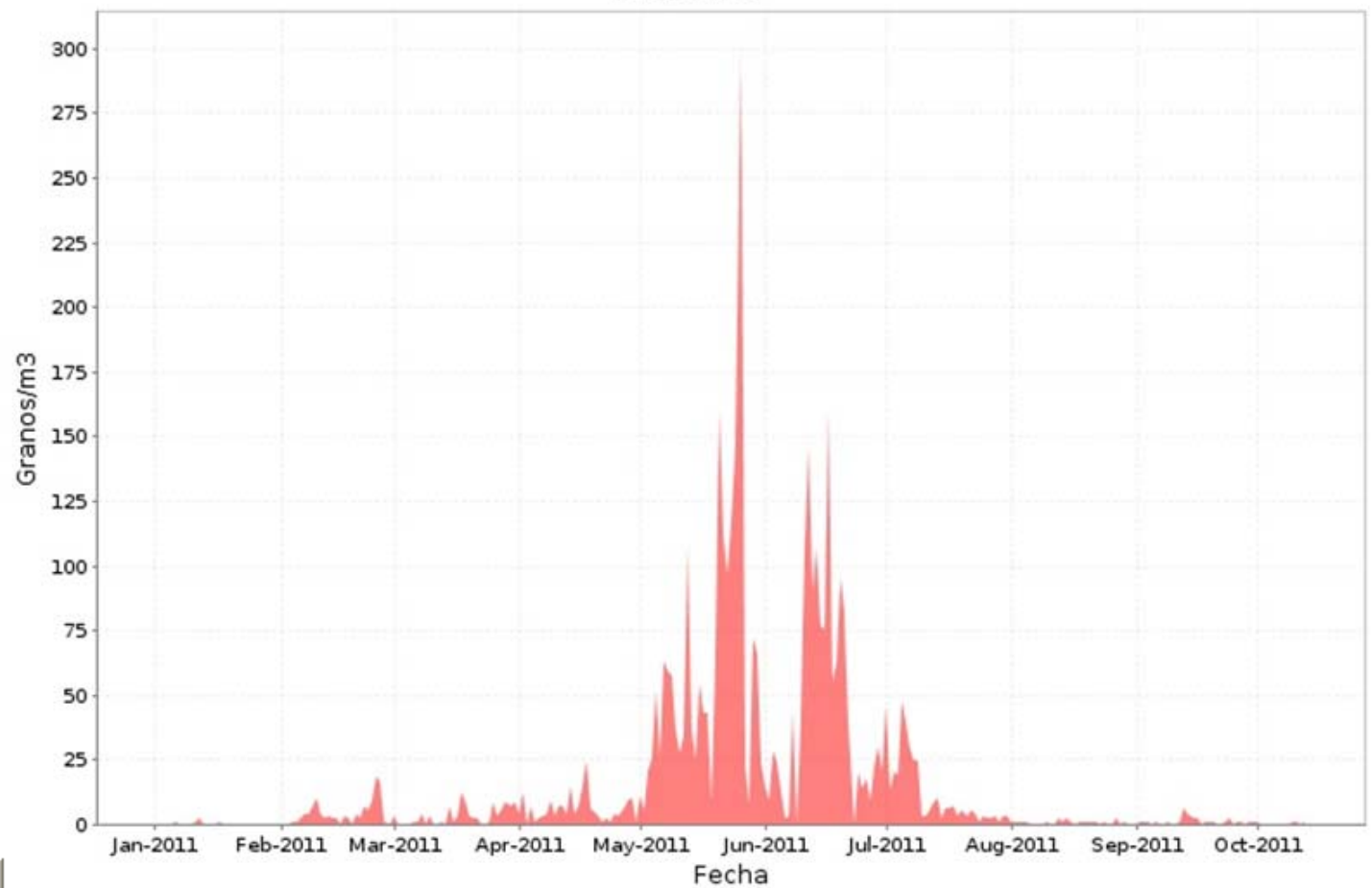
Estación: Año:

Fechas: Desde: Hasta:

Drs. J. Subiza, M. J. Narganes, C. Craciunescu.

info@clnicasubiza.com

Madrid



Pólenes totales


Comparar con el mismo periodo del año anterior

Comparar con la media

Comparar con años previos

Gramíneas

Cerrar



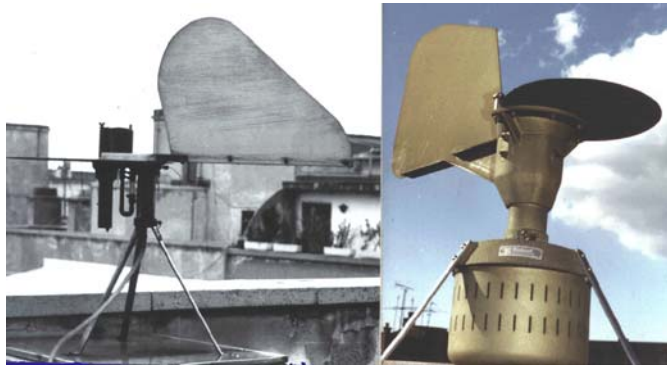
¿Porqué es útil
para el clínico
disponer de los
recuentos de
pólenes?

Utilidad clínica de los recuentos de pólenes

- ◆ **Determinar causa de polinosis en cada ciudad**
- ◆ **Determinar causa de polinosis en cada paciente**
- ◆ **Planificación de viajes**
- ◆ **Explicar variabilidad en la gravedad de la polinosis**
- **Aparición de nuevos pólenes alergénicos**
- **Estudios sobre eficacia de vacunas y fármacos**
- **Explicar prevalencia de sensibilizaciones**

◆ Determinar causa de polinosis en cada ciudad

Madrid 31 años de observación (1979-2010)



- 44 tipos de pólenes
- 32 familias
- Identificados 99,7% de los pólenes
- No identificados 0,3%

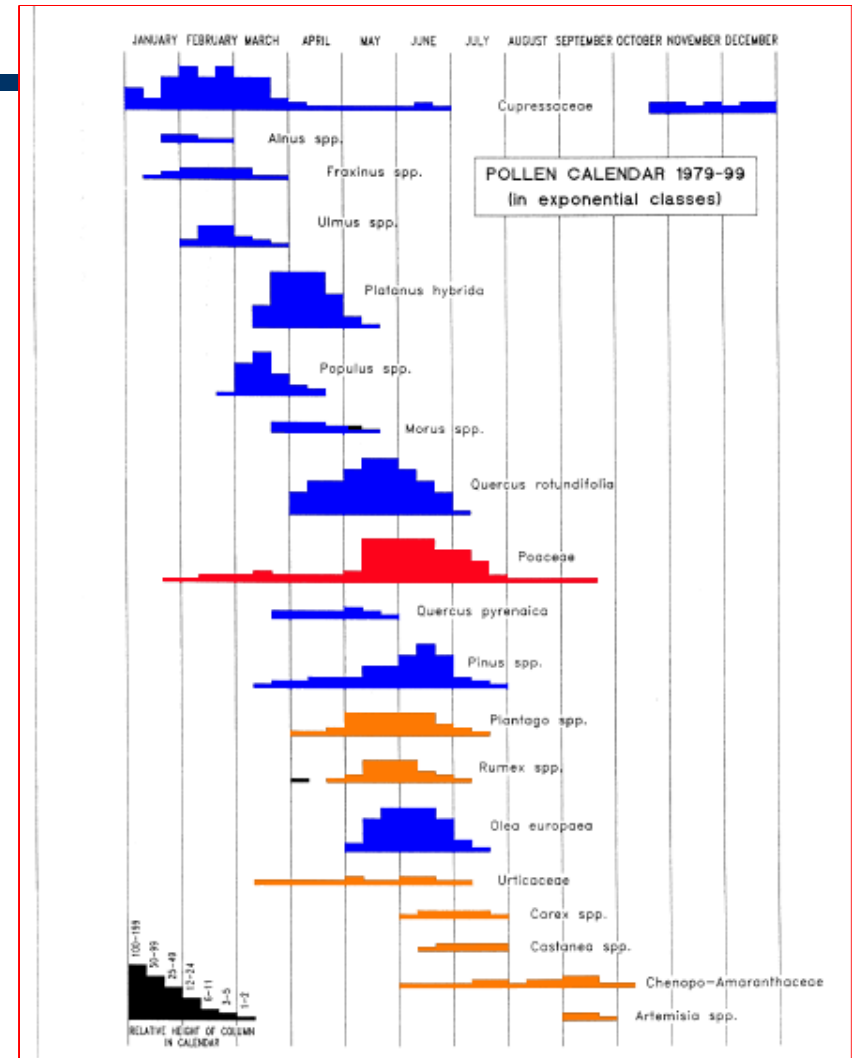
Tabla I. Frecuencia relativa anual de los tipos de pólenes encontrados en la atmósfera de Madrid, 1980-95

Familia	Género Especie	80-83	84-87	88-91	92-95	80-95
Fagaceae		21,01	18,96	16,48	16,45	18,22
	<i>Quercus</i> spp	20,15	18,52	15,89	15,97	17,63
	<i>Castanea</i> sp.	0,86	0,44	0,59	0,48	0,59
Platanaceae	<i>Platanus hispanica</i>	15,22	12,29	16,22	27,21	17,73
Poaceae		13,51	17,02	14,66	8,74	13,48
Cupressaceae		7,24	14,98	15,38	12,93	12,63
Oleaceae		12,45	8,76	10,08	7,73	9,75
	<i>Olea europaea</i>	11,02	7,30	8,56	5,63	8,13
	<i>Fraxinus angustifolia</i>	1,42	1,46	1,51	2,10	1,62
	<i>Ligustrum vulgare</i>	0,00	0,00	0,00	0,00	0,00
Pinaceae		8,14	8,20	7,07	4,96	7,09
	<i>Pinus</i> spp.	8,14	8,13	7,04	4,13	7,06
	<i>Cedrus</i> spp.	0,00	0,07	0,03	0,04	0,04
Salicaceae		4,27	4,54	5,05	5,20	4,76
	<i>Populus</i> spp.	3,84	4,33	4,75	5,03	4,49
	<i>Salix</i> spp	0,43	0,21	0,30	0,17	0,28
Plantaginaceae	<i>Plantago</i> spp	4,36	3,17	3,19	3,74	3,62
Moraceae	<i>Morus</i> spp.	2,68	1,68	1,80	3,49	2,41
Polygonaceae	<i>Rumex</i> spp.	2,04	2,15	1,87	0,93	1,75
Ulmaceae	<i>Ulmus</i> spp.	0,99	1,77	2,07	2,35	1,79
Chenopo-Amaranthaceae		1,55	1,22	1,69	2,04	1,62
	<i>Artemisia</i> spp.	1,40	1,11	1,08	0,56	1,04
	<i>Taraxacum</i> spp.	0,57	0,39	0,52	0,31	0,45
	Otros	0,11	0,03	0,06	0,06	0,03
Urticaceae		0,72	0,69	0,50	0,22	0,53
		1,42	0,98	0,78	1,07	1,06
Cyperaceae		1,06	0,85	0,62	0,32	0,71
	<i>Carex</i> spp.	1,06	0,85	0,62	0,32	0,71
	<i>Cyperus</i> spp.	0,00	0,00	0,00	0,00	0,00
Betulaceae		0,52	0,72	0,50	0,71	0,61
	<i>Alnus</i> spp.	0,39	0,59	0,40	0,54	0,48
	<i>Betula</i> spp.	0,12	0,10	0,08	0,16	0,11
	<i>Corylus</i> spp.	0,01	0,04	0,02	0,01	0,02
Ericaceae		0,43	0,26	0,20	0,25	0,28
Fabaceae		0,10	0,16	0,16	0,36	0,31
	*Papilionoideae	0,04	0,14	0,35	0,30	0,21
	Otros	0,04	0,00	0,00	0,00	0,01
*Caesalpinioideae	<i>Gleditsia</i> spp.	0,01	0,01	0,01	0,01	0,01
*Mimosoideae	<i>Mimosa</i> spp	0,01	0,01	0,00	0,00	0,00
Aceraceae	<i>Acer</i> spp.	0,20	0,24	0,25	0,52	0,30
Borraginaceae	<i>Echium plantagineum</i>	0,22	0,29	0,13	0,10	0,19
Myrtaceae	<i>Eucalyptus</i> sp	0,21	0,08	0,09	0,00	0,09
Umbelliferae		0,14	0,14	0,12	0,16	0,07
Hippocastanaceae	<i>Aesculus</i> sp	0,14	0,08	0,05	0,06	0,08
Typhaceae	<i>Typha</i> spp.	0,12	0,06	0,02	0,06	0,06
Cistaceae		0,02	0,02	0,02	0,07	0,01
Juncaceae		0,02	0,02	0,04	0,25	0,08
Buxaceae	<i>Buxus</i> spp.	0,06	0,00	0,00	0,00	0,01
Tiliaceae	<i>Tilia</i> spp.	0,03	0,01	0,00	0,00	0,01
Labiatae		0,02	0,00	0,00	0,00	0,01
Euphorbiaceae	<i>Mercurialis</i> spp.		0,02	0,00	0,00	0,00
Juglandaceae	<i>Juglans</i> spp.	0,00	0,00	0,00	0,00	0,00
Rosaceae		0,01	0,00	0,00	0,00	0,00
No identificados		0,48	0,24	0,03	0,00	0,19

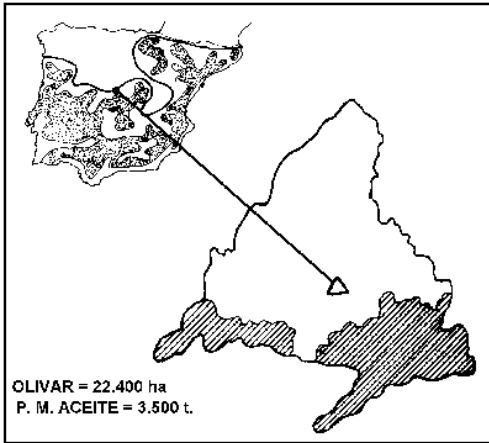
Los tipos de pólenes están clasificados según su porcentaje sobre los pólenes totales anuales y expresados en medias tetra anuales y media de 16 años. * Subfamilia.

- ◆ **Determinar causa de polinosis en cada ciudad**

- 18 tipos de pólenes más frecuentes
- Cada uno contribuye $> 0,4\%$ de los pólenes totales
- 95% de todas las observaciones
- Representa la flora anemófila de Madrid



Madrid (4 tipos de pólenes)

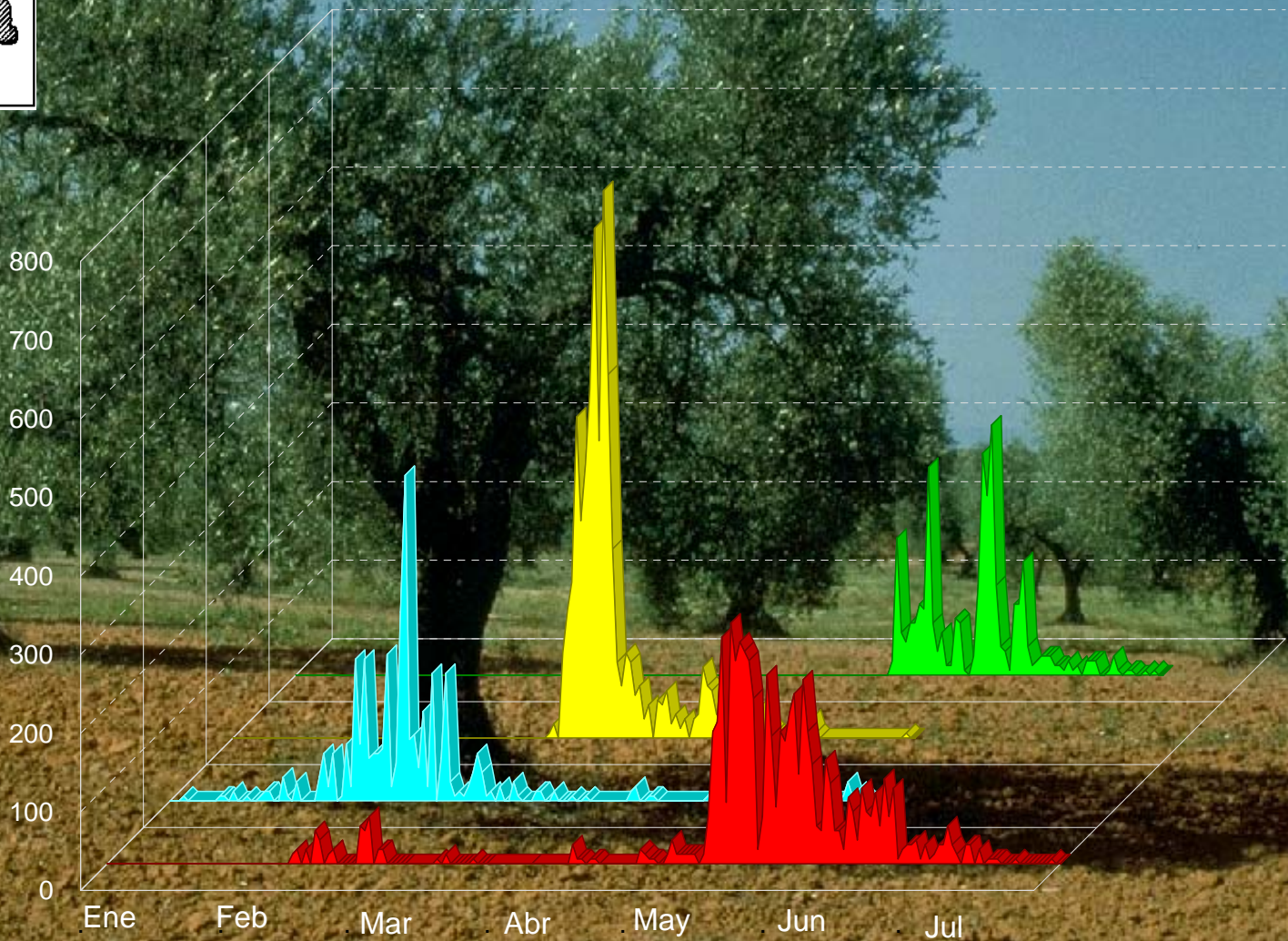


Cupressus 52%

Platanus 38%

Gramíneas 89 %

Olea 56%



Utilidad clínica de los recuentos de pólenes

- ◆ Determinar causa de polinosis en cada ciudad
- ◆ **Determinar causa de polinosis en cada paciente**
- ◆ Planificación de viajes
- ◆ Explicar variabilidad en la gravedad de la polinosis
- Aparición de nuevos pólenes alergénicos
- Estudios sobre eficacia de vacunas y fármacos
- Explicar prevalencia de sensibilizaciones

Calendario polínico de Madrid

- 18 tipos de pólenes
- Cada uno contribuye > 0,4% de los pólenes totales
- 95% de todas las observaciones
- Representa la flora anemófila de Madrid

PCP

52%

53%

15%

38%

28%

29%

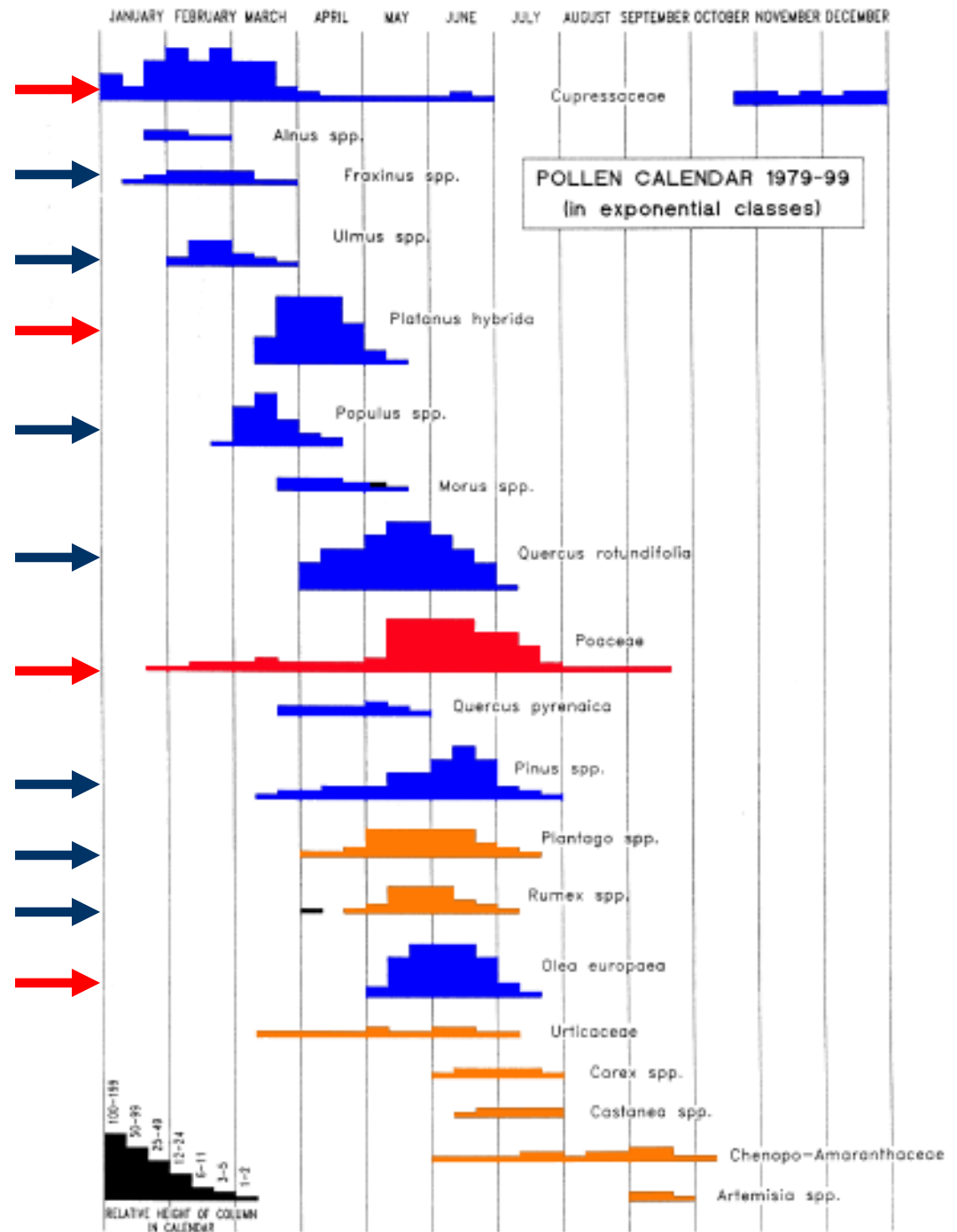
89%

6%

35%

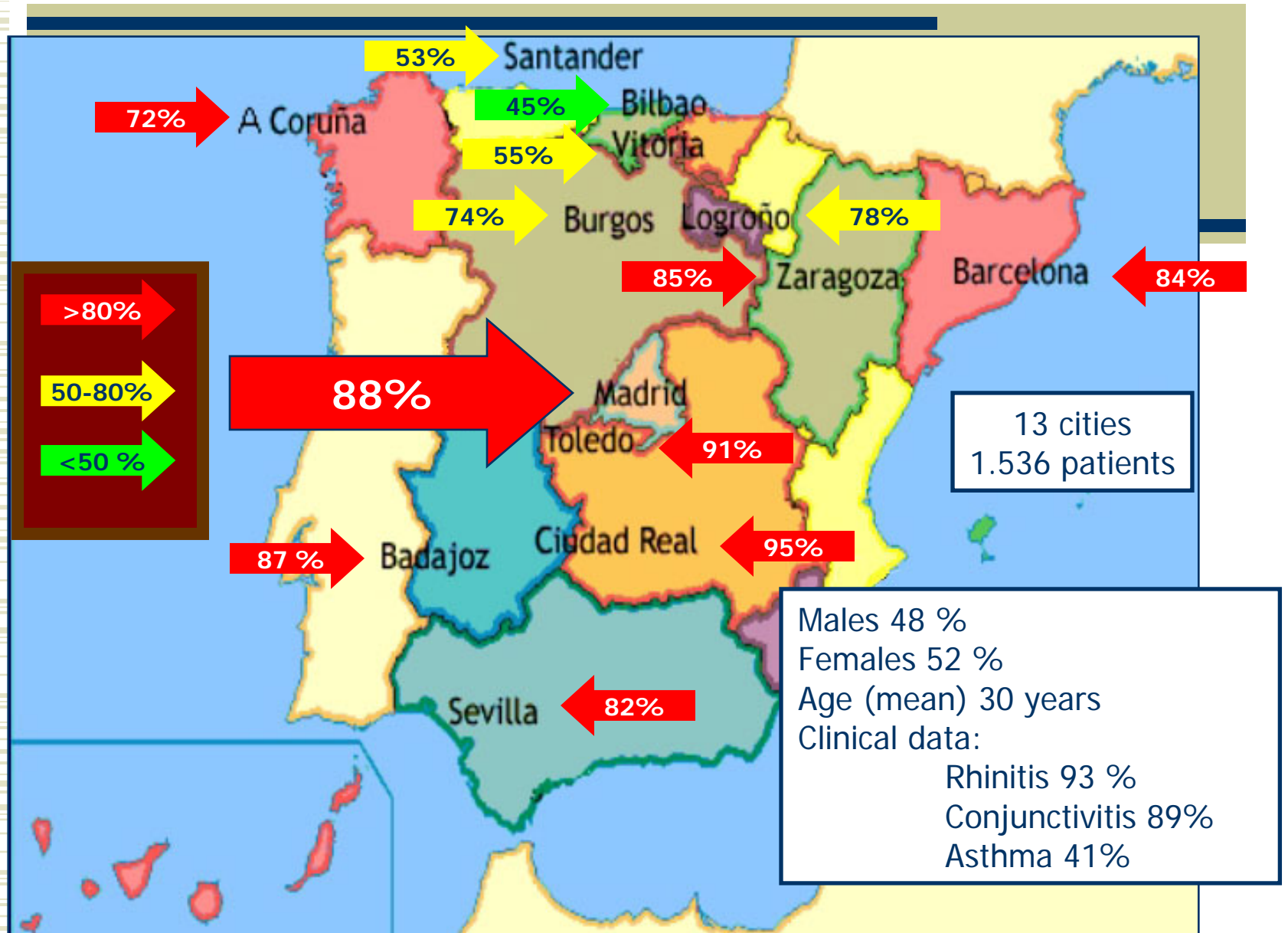
17%

56%



Prevalence of pollen polysensitization

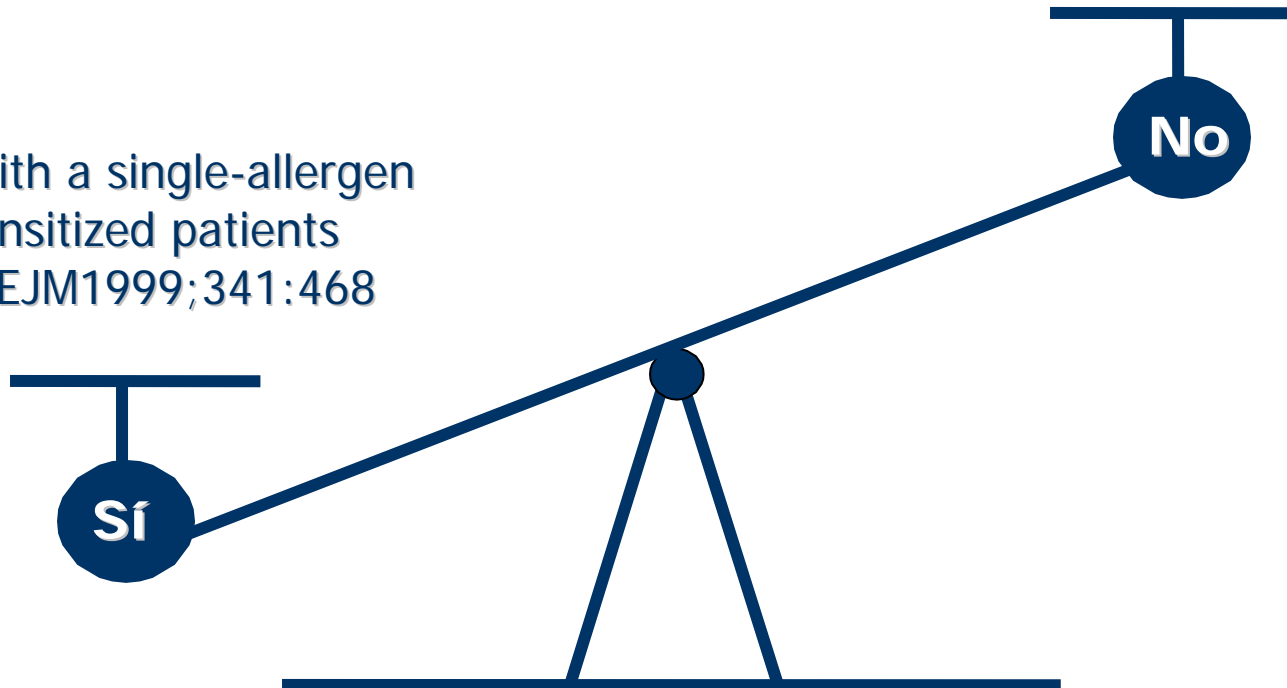
within pollinosis patients in 13 Spanish cities



Eficacia de la inmunoterapia

Extracts with multiple allergens in
polysensitized patients
Adkinson NEJM1997;336:324

Extracts with a single-allergen
in monosensitized patients
Durham NEJM1999;341:468

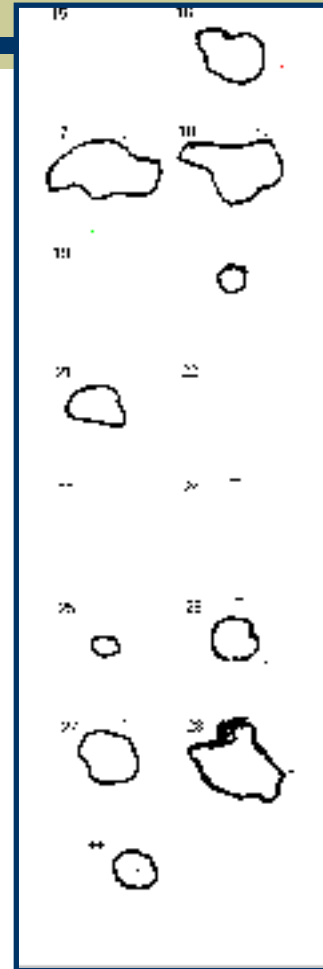
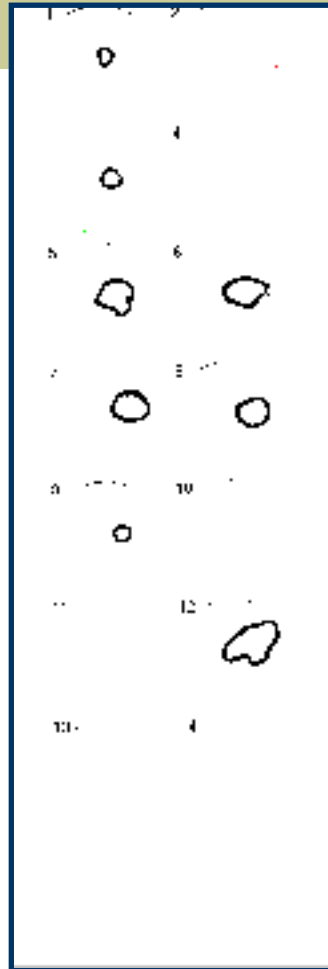


Eficacia de la inmunoterapia

Ejemplo de un paciente polínico de Madrid

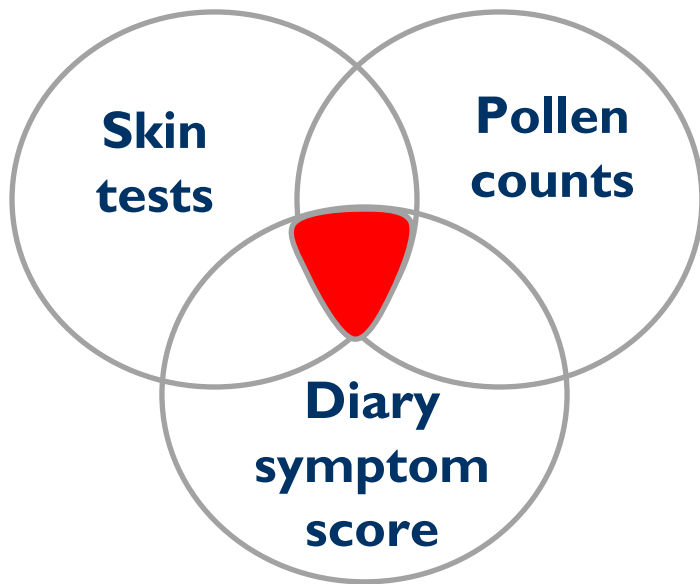
Pruebas cutáneas

¿Qué puedo hacer?



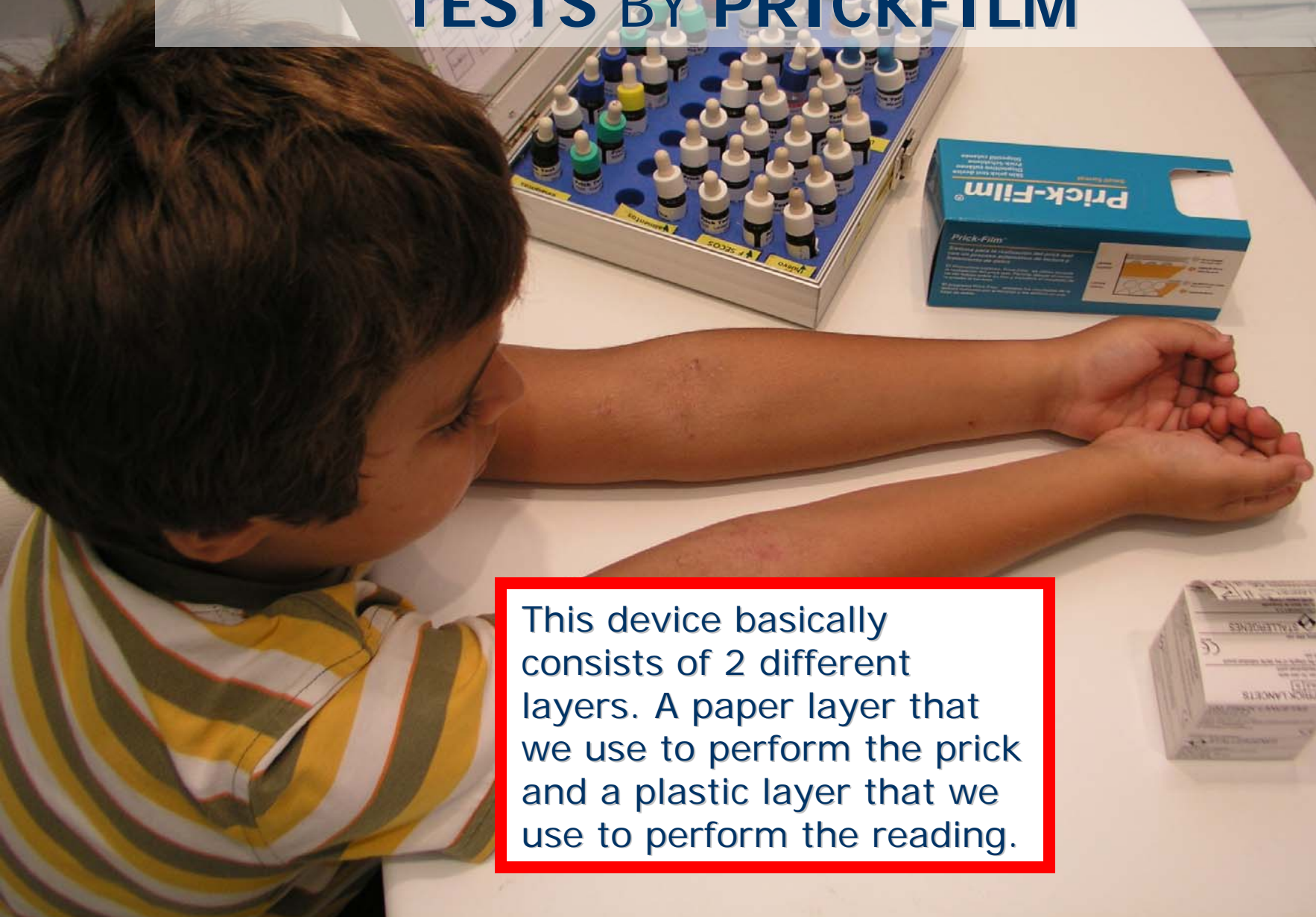
AlerCon[®]: Conceptual Idea

Tools for assessing immunotherapy:



Alercon, a programme which automatically unifies
diary symptom score
pollen counts
and skin test
in order to try to improve the efficiency of immunotherapy in polysensitised pollinosis patients

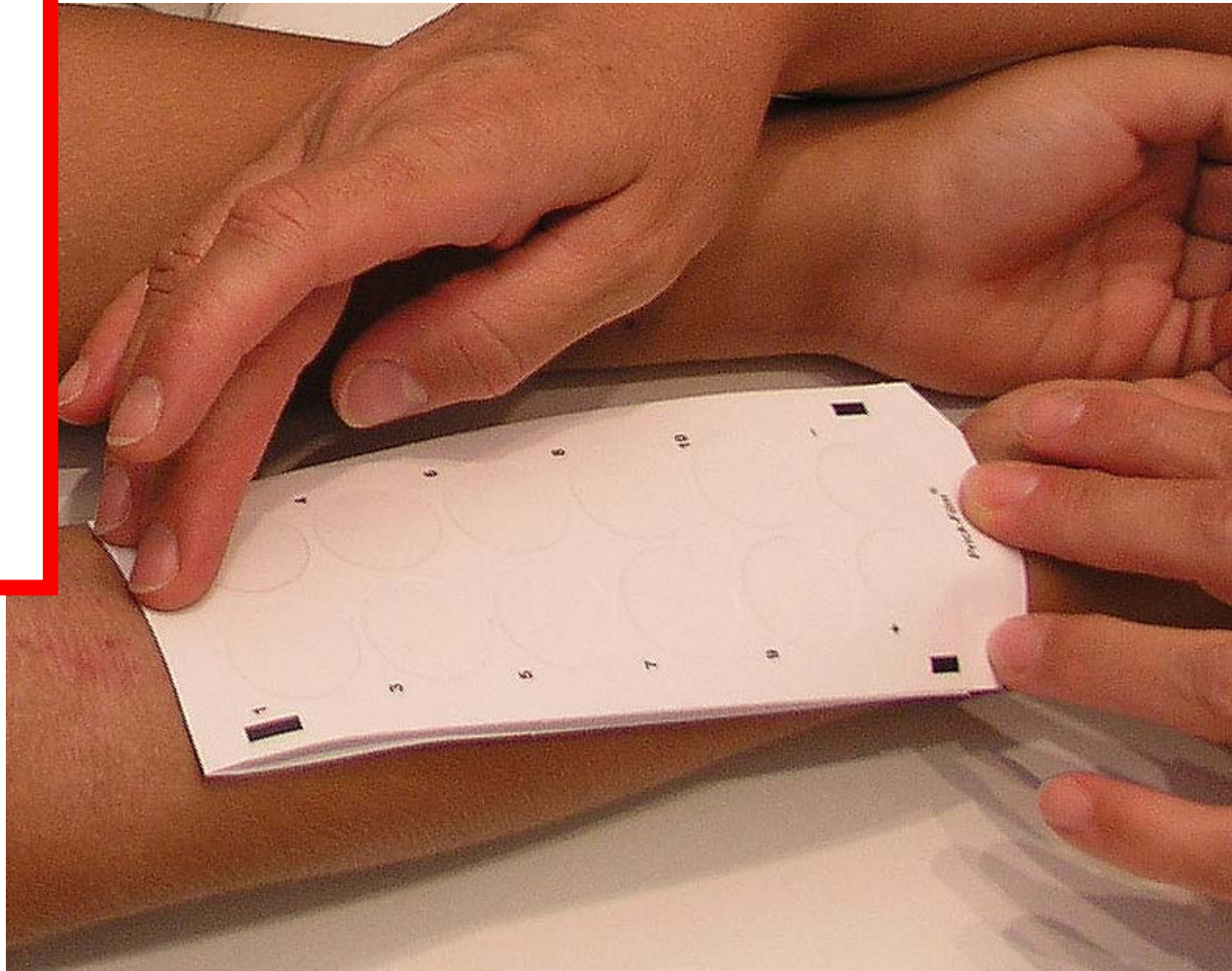
AUTOMATIZATION OF SKIN PRICK TESTS BY PRICKFILM



This device basically consists of 2 different layers. A paper layer that we use to perform the prick and a plastic layer that we use to perform the reading.

AUTOMATIZATION OF SKIN PRICK TESTS BY PRICKFILM


Firstly we stick the paper layer on the forearm thanks to a medical adhesive which is present in the corners.



AUTOMATIZATION OF SKIN PRICK TESTS BY PRICKFILM

Secondly, we put the different drops of allergen extracts and controls, in the small holes





Thirdly we perform the prick using a lancet for each drops to avoid cross contamination

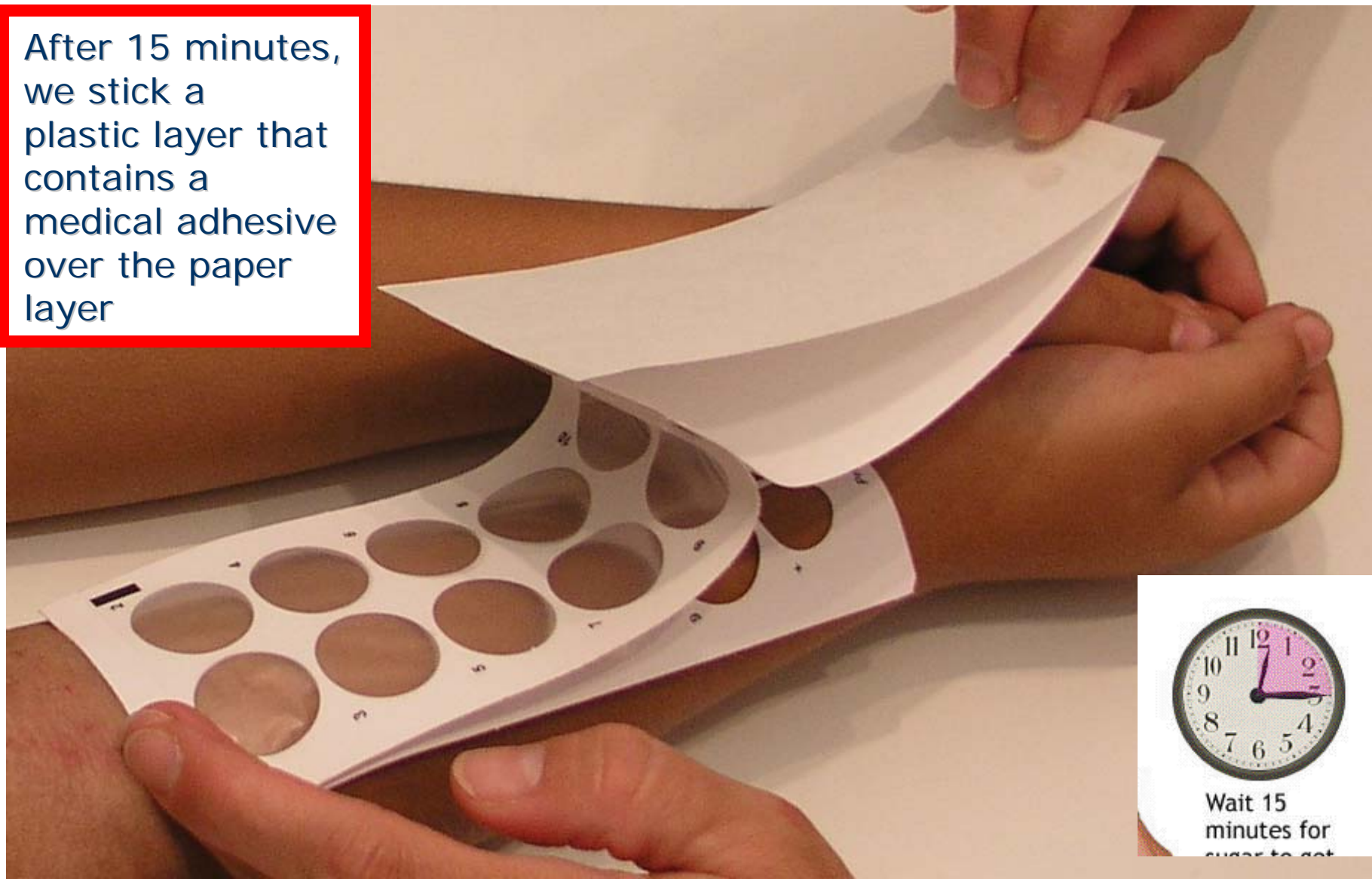
AUTOMATIZATION OF SKIN PRICK TESTS BY PRICKFILM



Fourthly we remove the excess of extract with a drying paper

AUTOMATIZATION OF SKIN PRICK TESTS BY PRICKFILM

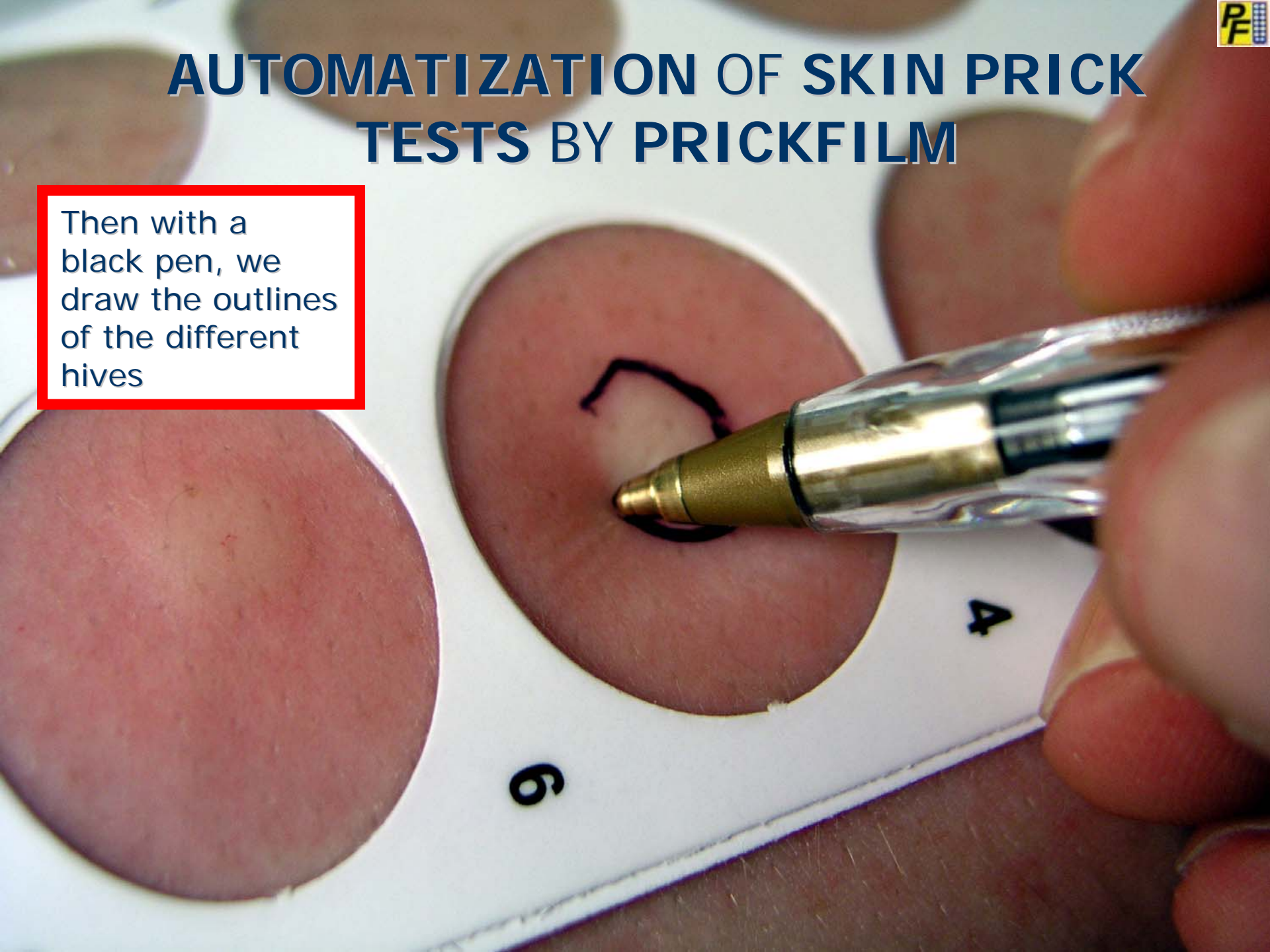
After 15 minutes, we stick a plastic layer that contains a medical adhesive over the paper layer



Wait 15 minutes for sugar to get

AUTOMATIZATION OF SKIN PRICK TESTS BY PRICKFILM

Then with a black pen, we draw the outlines of the different hives



AUTOMATIZATION OF SKIN PRICK TESTS BY PRICKFILM

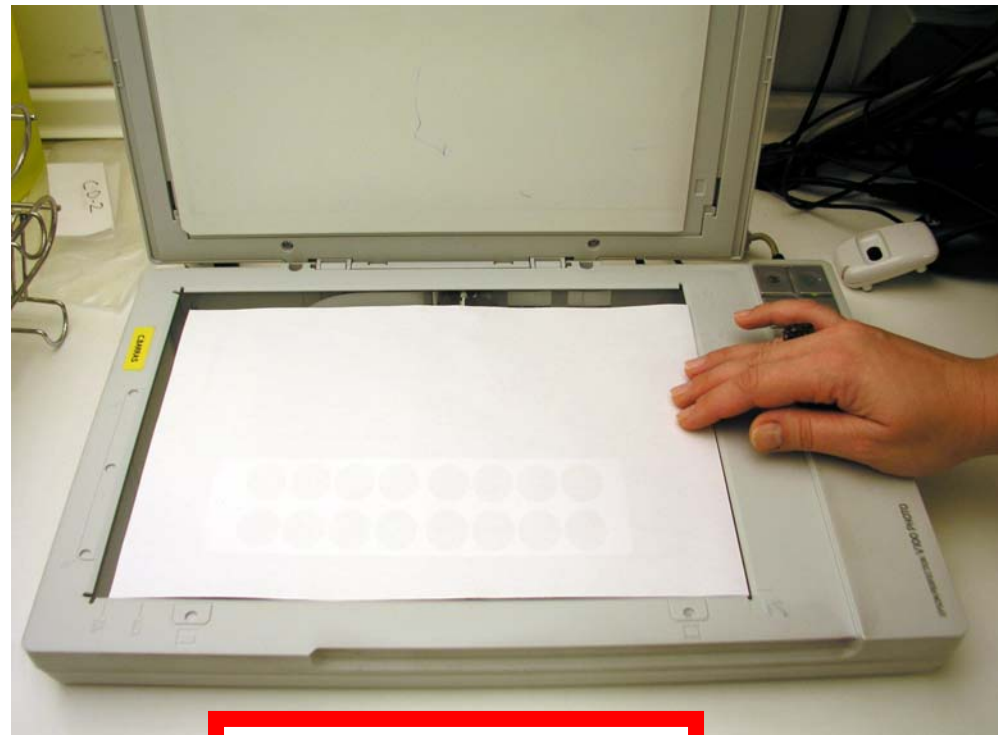
We remove the plastic layer from the forearm



AUTOMATIZATION OF SKIN PRICK TESTS BY PRICKFILM



we stick the plastic layer on a page that contain a bar code indicating the type of battery



we scan the page and in this way we obtain reading results immediately



Ergebnisse Scannen

Id Allergen-Set

	Allergen	Area	Grade
A1	Hafer, Saat-	25	3+
A2	Mais	0	-
A3	Roggen	46	4+
A4	Hafer, Gold-	0	-
A5	D. pteronyssinus	0	-
A6	Acarus siro	33	4+
A7	Tyrophagus putrescentiae	0	-
A8	Entenfedern	0	-
A9	Gänsefedern	40	4+
A10	Wellensittich	0	-
A11	Hühnerfedern	0	-
A12	Schwein	40	4+
B1	Schaf	41	4+
B2	Rind	14	2+
B3	Pferd	25	3+
B4	Hamster	7	-

	Allergen	Area	Grade
B5	Meerschweinchen	0	-
B6	Kaninchen	31	4+
B7	Hund	33	4+
B8	Katze	40	4+
+	Histamin	18	
-	Kontrolle Negativ	5	

- Allergen area is subtracted from saline = AA
- Histamine area is subtracted from saline = HA
- Compare AA with HA according to the following graduation
 - = negative
 - 1+ = 25 % of HA
 - 2+ = 50 % of HA**
 - 3+ = 100 % of HA
 - 4+ = 200 % of HA
- 1) Dreborg, ed. Skin tests used in type I Allergy testing. Position paper. Allergy, 1989;44 (Suppl 10):1-59

in the first column, you can observe the different allergen extracts that we tested and the controls.

In the second column you can see the exact area of the hives expressed in mm²

Additionally, the software program, following the recommendation of the European Academy of Allergy, calculates the results in a graduation from 0 to 4+

Hauttest

Bericht Nr: 1674568 Testnummer: 6
 Patienten: Weiss, Alfred, 62, Geschlecht: M

Klinik für Allergologie Dr. Klein
 Postenbergweg, 12
 76543 Riederich
 Telefon: 76547898
 Fax: 87560876
 Email: drklein@drklein.de

Datum: 05/09/2006 8:10:04

Angefordert von: Dr. med. Marcus Klein

Test-Methode: Prick-Test
 Lanzetten-Typ: 1 mm DHS

Dermographismus: -

Motiv: Asthma

Satz: Standard-1K

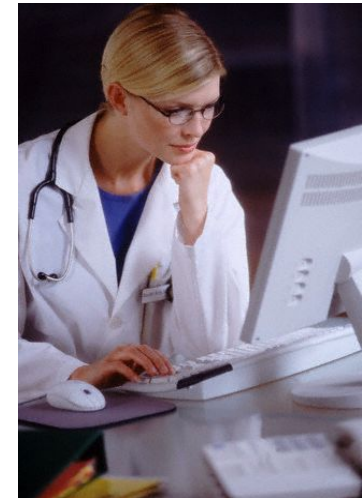
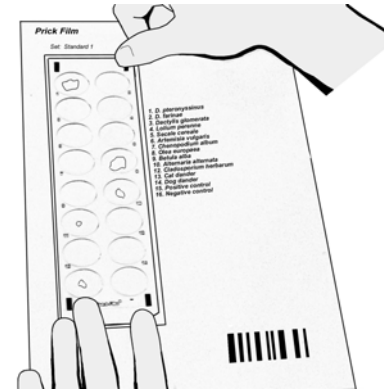
Allergene	Fläche	0-4+	Konzentration
A1 Alternaria alternata	0 (0/0)	-	30 HEP
A2 Ulme	23 (4/7)	3+	1/20 W/V
A3 Birke	0 (0/0)	-	50 HEP
A4 D. farinae	53 (8/8)	4+	50 HEP
A5 D. pteronyssinus	0 (0/0)	-	50 HEP
A6 Gänsefuss	0 (0/0)	-	50 HEP
A7 Beifuß	60 (10/9)	4+	50 HEP
A8 Roggen	105 (11/13)	4+	50 HEP
A9 Gerste	0 (0/0)	-	50 HEP
A10 Wiesenlieschgras	0 (0/0)	-	50 HEP
+ Histamine	15 (4/4)	-	10 mg/mL
- Saline	0 (0/0)	-	



A 1:2

Umfangsbereich der Quaddel in Quadratmillimeter
 Grad ausgedrückt nach der spezifischen Fläche (Allergene minus Salinisch) kalkuliert nach der Histaminreaktion
 (-<25%), 1+(25 - 50%), 2+(50 - 100%), 3+(100 - 200%), 4+(>200%)
 Man beurteilt als positiv die Werte > 1+

Auslegung



The program is able to generate a report of the skin prick test.

But the most important thing, is the fact that all the skin prick test results are now stored in a data base that we can use with the Alercon program to perform the correlations with the symptoms.



**HOW CAN WE
AUTOMATIZE THE DIARY
SYMPTOM SCORE?**

Alercon Electronic Diary Card



...using an Electronic Diary Card. This is in reality a simple program that we generate from the Alercon and is automatically sent to the patient by email. When the patient receives this email in their PC, the program is automatically installed in their computer.....

Alercon Electronic Diary Card

Composed card - Thursday, 01/03/2007

Sneezing <input type="radio"/> 3 - Severe <input checked="" type="radio"/> 2 - Moderate <input type="radio"/> 1 - Mild <input type="radio"/> 0 - Asymptomatic	Cough <input type="radio"/> 3 - Severe <input type="radio"/> 2 - Moderate <input type="radio"/> 1 - Mild <input checked="" type="radio"/> 0 - Asymptomatic	Ventolin (puff/day) <input type="radio"/> more than 6 <input type="radio"/> 5 - 6 <input type="radio"/> 3 - 4 <input type="radio"/> 1-2 <input checked="" type="radio"/> 0
Runny nose <input type="radio"/> 3 - Severe <input type="radio"/> 2 - Moderate <input checked="" type="radio"/> 1 - Mild <input type="radio"/> 0 - Asymptomatic	Wheezing <input type="radio"/> 3 - Severe <input type="radio"/> 2 - Moderate <input type="radio"/> 1 - Mild <input checked="" type="radio"/> 0 - Asymptomatic	Flixotide mcg/day <input type="radio"/> 1000 <input type="radio"/> 500 <input type="radio"/> 250 <input type="radio"/> 100 <input checked="" type="radio"/> 0
Nasal blockage <input type="radio"/> 3 - Severe <input checked="" type="radio"/> 2 - Moderate <input type="radio"/> 1 - Mild <input type="radio"/> 0 - Asymptomatic	Shortness of breath <input type="radio"/> 3 - Severe <input type="radio"/> 2 - Moderate <input type="radio"/> 1 - Mild <input checked="" type="radio"/> 0 - Asymptomatic	Prednisone mg/day <input type="radio"/> more than 45 <input type="radio"/> 45 <input type="radio"/> 40 <input type="radio"/> 35 <input type="radio"/> 30 <input type="radio"/> 25 <input type="radio"/> 20 <input type="radio"/> 15 <input type="radio"/> 10 <input type="radio"/> 5 <input checked="" type="radio"/> 0
Eyes itching <input type="radio"/> 3 - Severe <input type="radio"/> 2 - Moderate <input checked="" type="radio"/> 1 - Mild <input type="radio"/> 0 - Asymptomatic	Aerius (Tablets/day) <input type="radio"/> 2 - Tablets <input checked="" type="radio"/> 1 - Tablet <input type="radio"/> 0 - Tablets	
Tears <input type="radio"/> 3 - Severe <input checked="" type="radio"/> 2 - Moderate <input type="radio"/> 1 - Mild <input type="radio"/> 0 - Asymptomatic	Rhinocort (puff/day) <input type="radio"/> 4 - puff <input checked="" type="radio"/> 2 - puff <input type="radio"/> 0 -	

Accept Cancel

..from this moment, whenever the patient starts the computer, a calendar appears, with a notice indicating that the patient needs to fill in the electronic diary card...

SQL Server



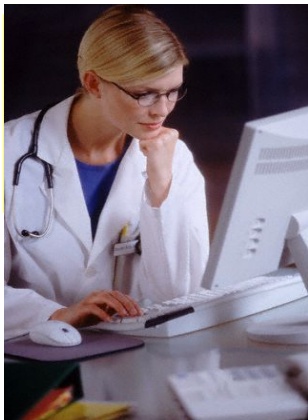
Patient's PC



Data Sent

Data update

Doctor's PC



Pollen counts

Electronic Diary Card

Patient's daily symptoms

Alercon



PrickFilm

Patient's skin tests

..when the patient closes the electronic diary card program, all data on the electronic diary card are automatically sent to a central server. Additionally, when the doctor starts the Alercon in his PC, he automatically obtains both the patient's data and pollen counts, along with the skin prick test results from the prickfilm.



Clinical cases using Alercon

CLINICAL CASE USING ALERCON



Patient 1

RC Symptoms:

A 22 year old man
multi-seasonal

	SPT	ISAC (ISU)	Nasal Provocation
<i>Cupressus arizonica</i> nCup a 1	4+	9.13 (2)	Positive (1.852 BU/mL)
<i>Phleum pratense</i> rPhl p 1	3+	0.81 (1)	Positive (16.677BU/mL)
<i>Olea europaea</i> nOle e 1	3+	0.86 (1)	Positive(206 BU/mL)
<i>Chenopodium album</i>	2+	nd	non done

Alercon



Control window

Find patient

Delete graphs

Station Madrid

From: 16/09/2007

to: 07/05/2009

Selected pollens

- Alnus
- Artemisia
- Carex
- Castanea
- Chenopo/Amar
- Cupress/Taxac
- Fraxinus
- Morus
- Olea
- Pinus
- Plantago
- Platanus
- Poaceae
- Populus
- Quercus
- Rumex
- Ulmus
- Urticaceae

Exit

Update screen = CTRL + Left click mouse

Ventana de Gráficas:



Search

SANCHEZ ROMAN

Activate Advanced search

Activate search in PrickScan

Order by:

- numhist
- nombre
- apellidos
- telefono

numhist	nombre	apellidos	localidad	protocolo
25649	RAFAEL	ABESCAT		Rhinodouche S
46597	Mª ISABEL	ALBO SANTEIRO	MADRID	
52220	JORGE	ALCALA PASAMONTES		
49789	ENRIQUE	ALMANSA ALBARRAN		
53649	JORGE	ALONSO RODRIGUEZ	MADRID	
57232	FERNANDO	ALVAREZ TORRES		
49587	JOSE LUIS	ANDRES MIGUELEZ		
51786	ALBERTO	ANTEQUERA GARCIA	MADRID	Interesante
49109	CARLOS	ARAUJO PALOP		Datos
28258	EVA	ARDOY OCAÑA	MADRID	
25795	MARINA	ARIAS RESCO		Rhinodouche S
49790	ANTONIO	ARRIBAS GARCIA		Interesante
50327	ANGEL	ARROYO BERGERA		
59004	M ANGELES	ARROYO DE DOMPABLO		
58549	MARIA ROSA	ARROYO GOMEZ		
58935	JUAN JOSE	AYUSO VALDES		
51732	IRENE	AYUSO VENTURA		
47081	JOSE LUIS	BAEZA CALLEJA		
58378	JORGE	BARBA BENITO		
42450	SARA	BARBERO ALVAREZ		
58736	ANTONIA	BARRAGAN BERNABE		

New

Edit

Test

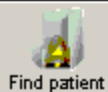
Print

to send

Accept

Cancel

Control window



Find patient



Delete graphs

Station: Madrid

From: 16/09/2007

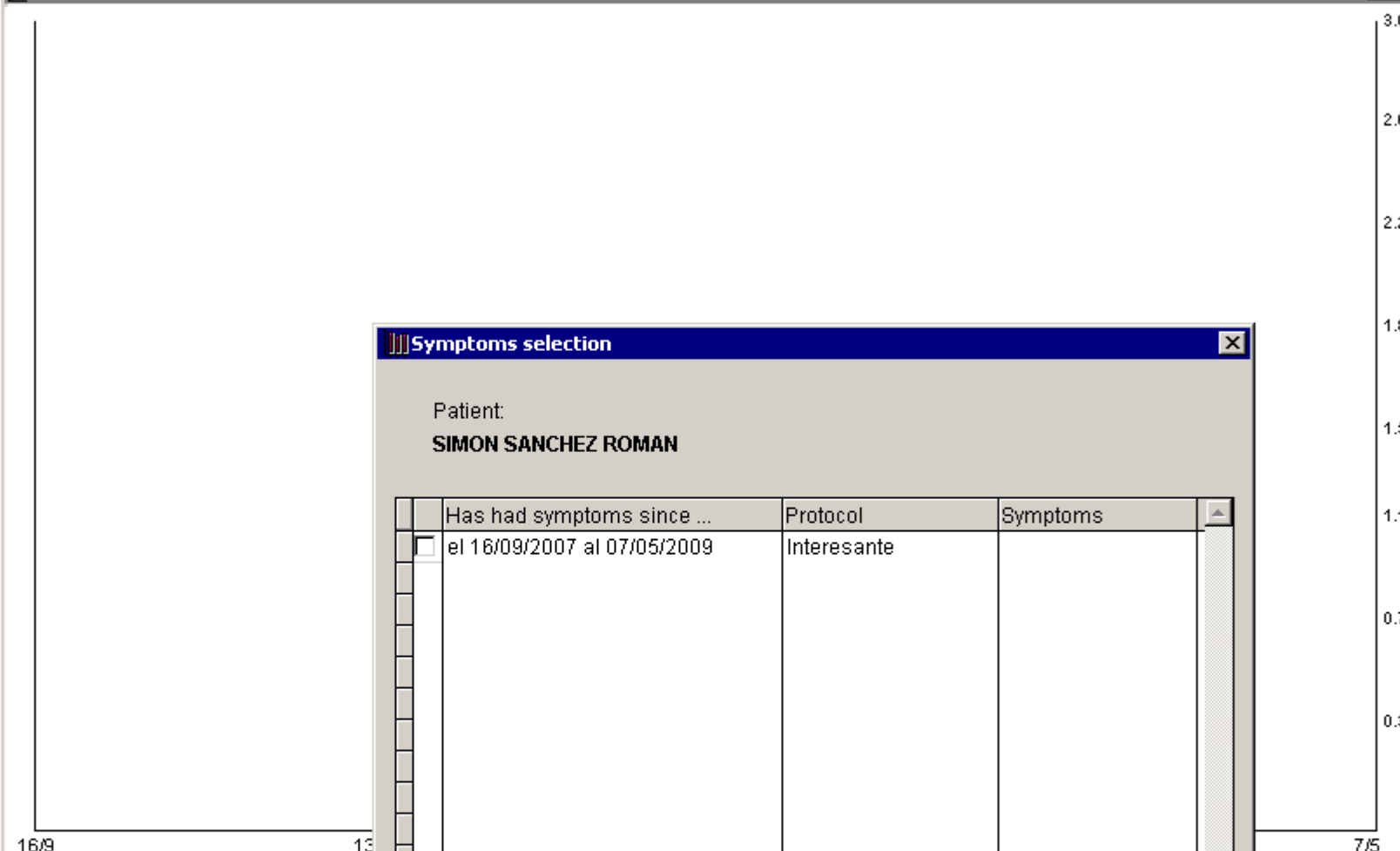
To: 07/05/2009

Selected pollens

Pollen
<input type="checkbox"/> Alnus
<input type="checkbox"/> Artemisia
<input type="checkbox"/> Carex
<input type="checkbox"/> Castanea
<input type="checkbox"/> Chenopo/Amar
<input type="checkbox"/> Cupress/Taxac
<input type="checkbox"/> Fraxinus
<input type="checkbox"/> Morus
<input type="checkbox"/> Olea
<input type="checkbox"/> Pinus
<input type="checkbox"/> Plantago
<input type="checkbox"/> Platanus
<input type="checkbox"/> Poaceae
<input type="checkbox"/> Populus
<input type="checkbox"/> Quercus
<input type="checkbox"/> Rumex
<input type="checkbox"/> Ulmus
<input type="checkbox"/> Urticaceae

Exit

Ventana de Gráficas:



16/9

13

7/5

Symptoms

Export to Excel

Actualizar

Date	thres.

Symptoms selection

Patient:
SIMON SANCHEZ ROMAN

	Has had symptoms since ...	Protocol	Symptoms
<input type="checkbox"/>	el 16/09/2007 al 07/05/2009	Interesante	

Accept Cancel

Control window

Find patient

Delete graphs

Location: Madrid

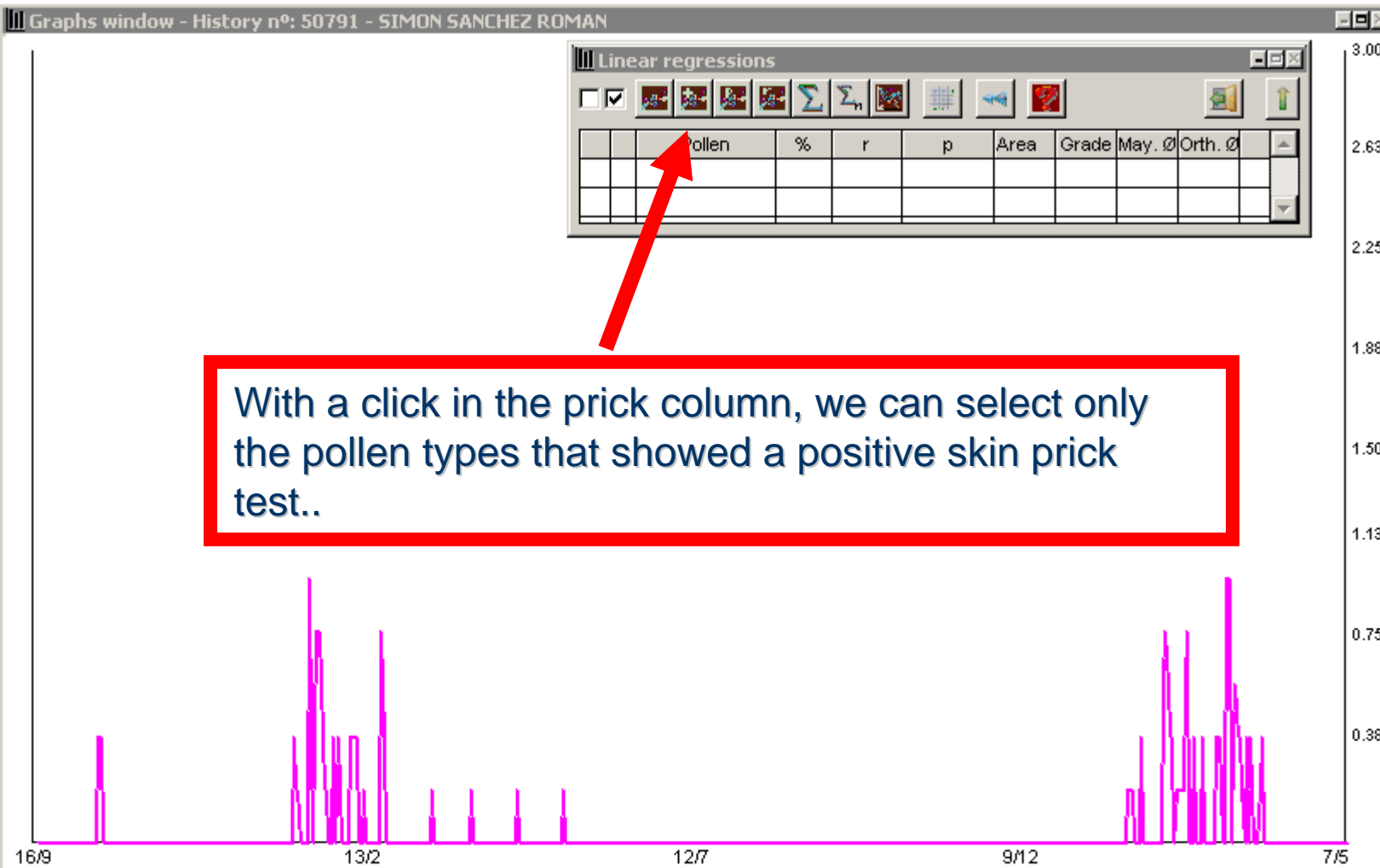
From: 16/09/2007

To: 07/05/2009

Selected pollens

Pollen	
<input checked="" type="checkbox"/> Alnus	
<input type="checkbox"/> Artemisia	
<input type="checkbox"/> Carex	
<input type="checkbox"/> Castanea	
<input type="checkbox"/> Chenopo/Amara	
<input type="checkbox"/> Cupress/Taxace	
<input type="checkbox"/> Fraxinus	
<input type="checkbox"/> Morus	
<input type="checkbox"/> Olea	
<input type="checkbox"/> Pinus	
<input type="checkbox"/> Plantago	
<input type="checkbox"/> Platanus	
<input type="checkbox"/> Poaceae	
<input type="checkbox"/> Populus	
<input type="checkbox"/> Quercus	
<input type="checkbox"/> Rumex	
<input type="checkbox"/> Ulmus	
<input type="checkbox"/> Urticaceae	

Exit



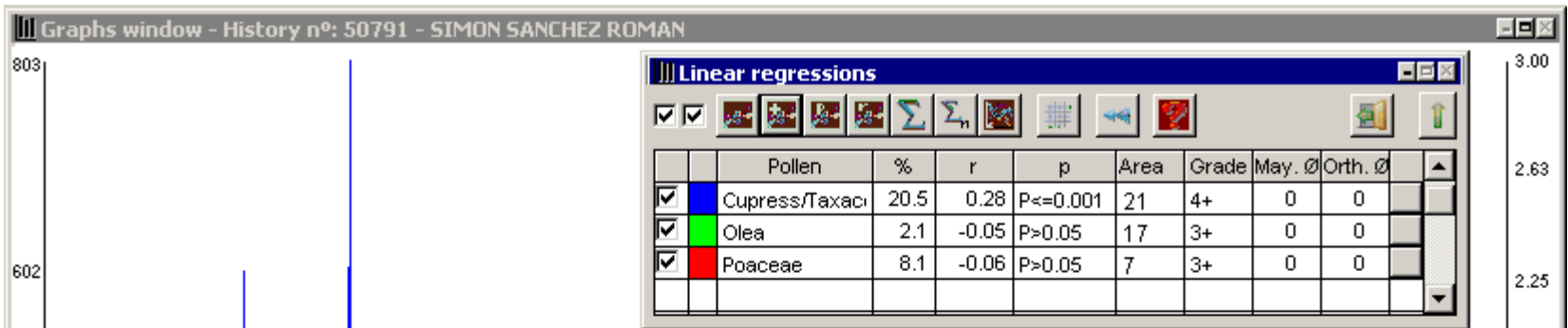
With a click in the prick column, we can select only the pollen types that showed a positive skin prick test..

Symptoms

Date	Exposure	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Notes
16/09/2007	<input checked="" type="checkbox"/>																																	
17/09/2007	<input checked="" type="checkbox"/>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18/09/2007	<input checked="" type="checkbox"/>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19/09/2007	<input checked="" type="checkbox"/>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

we can observe the patient rhinitis symptoms scores from 16 September 2007 to 7 May 2009

Clinical case using Alercon (1)



..there were only 3 different types of pollen, *Cupressus Olea*, and grasses

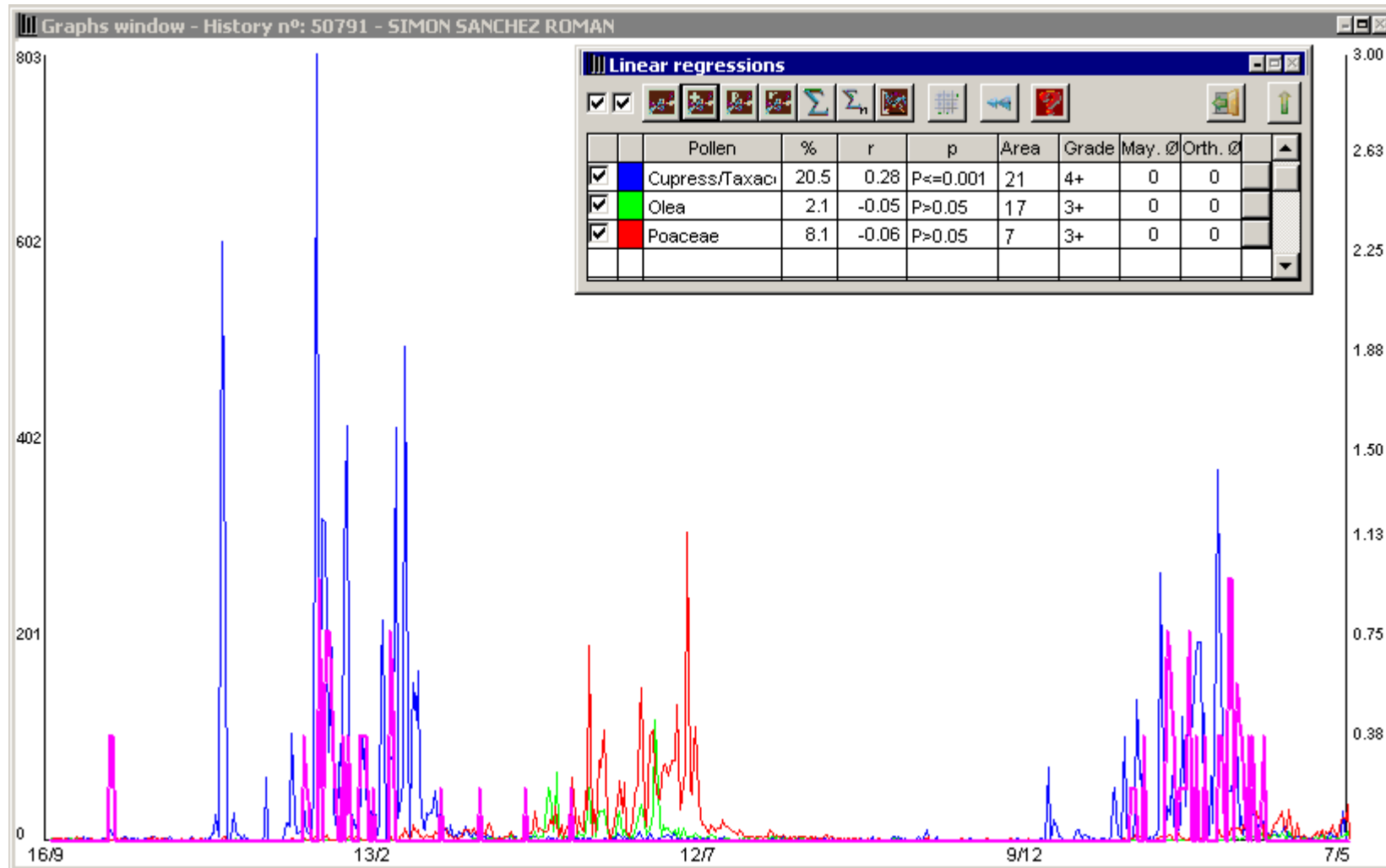
In the second column, we observe the atmospheric porcentual contribution of each pollen type in total pollen, during this period.

In the third and fourth column, we can see the correlation coefficient between symptoms and each type of pollen and the significant.

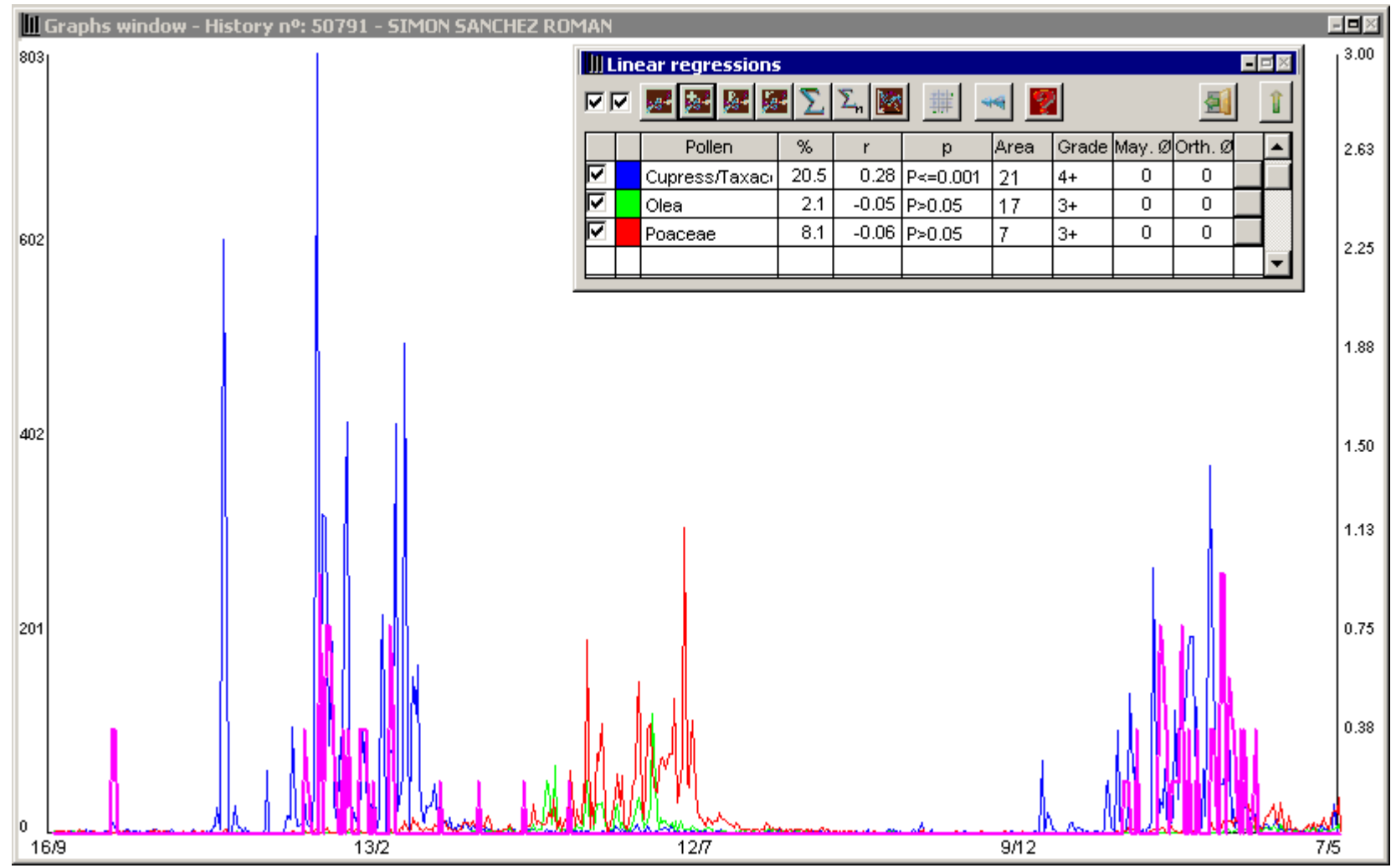
Finally, in the last columns we have the results of the skin prick tests



Clinical case using Alercon (1)

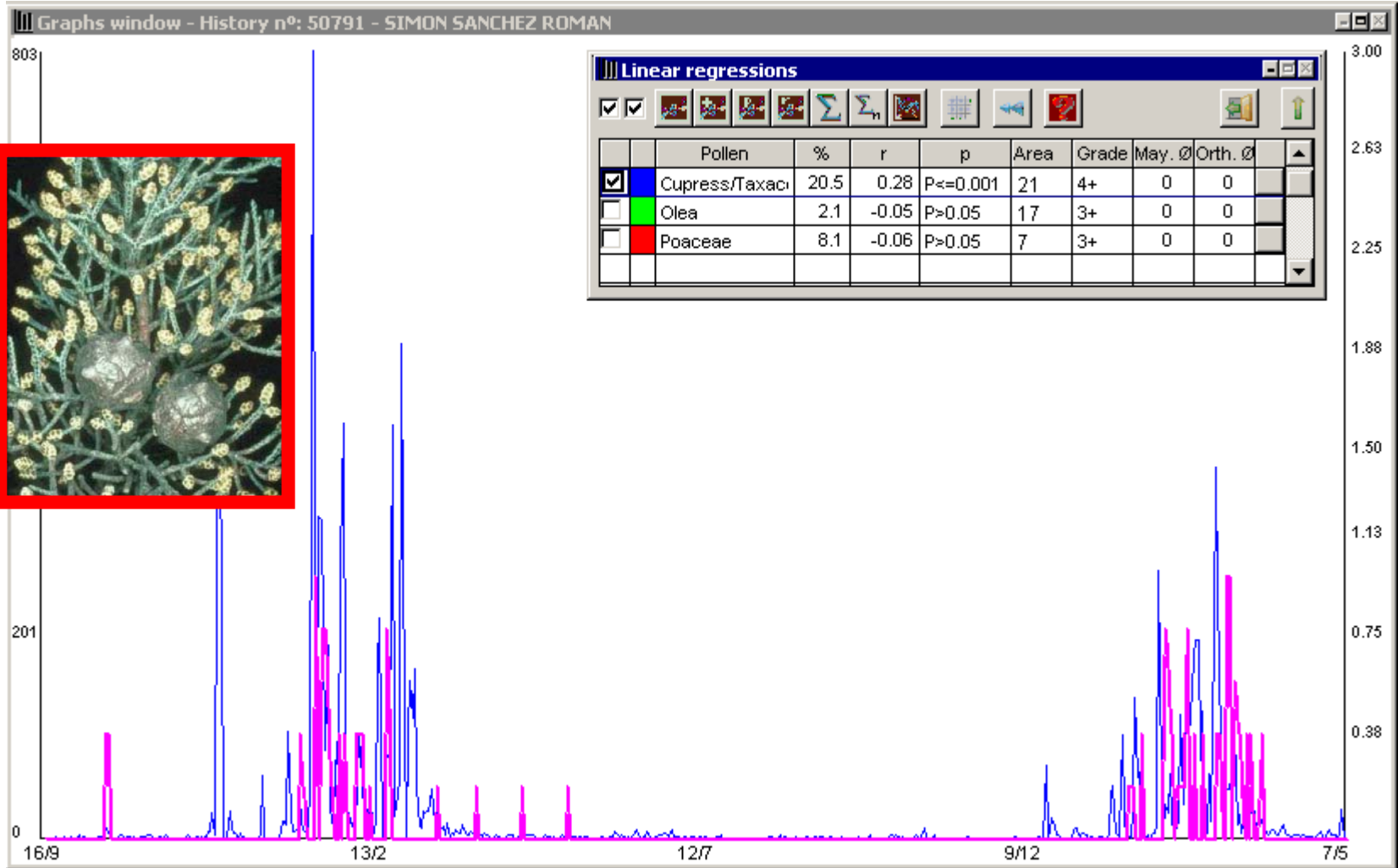


Clinical case using Alercon (1)



You can see that the Symptoms only showed a significant correlation with *Cupressus* but not with *Olea* and grasses counts in spite of the positivity in the skin prick tests

Clinical case using Alercon (1)



In this polysensitised patient, *Cupressus* is his dominant pollen, and we think he is a good candidate to try an immunotherapy only with this pollen.

And we could obtain this knowledge in a very easy way, thanks to Alercon.

CLINICAL CASE USING ALERCON



Patient 2

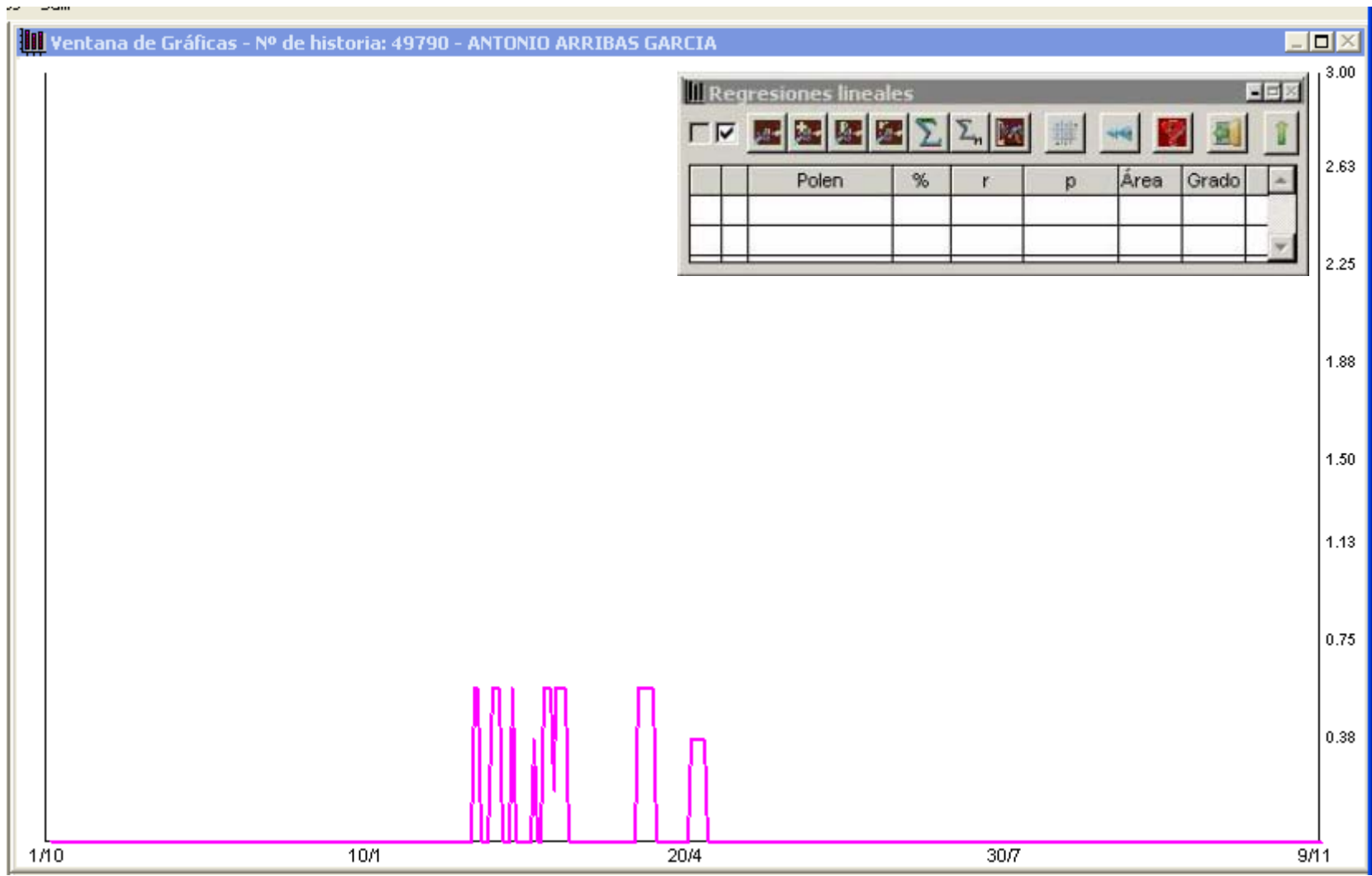
A 44 year old man

RC Symptoms:

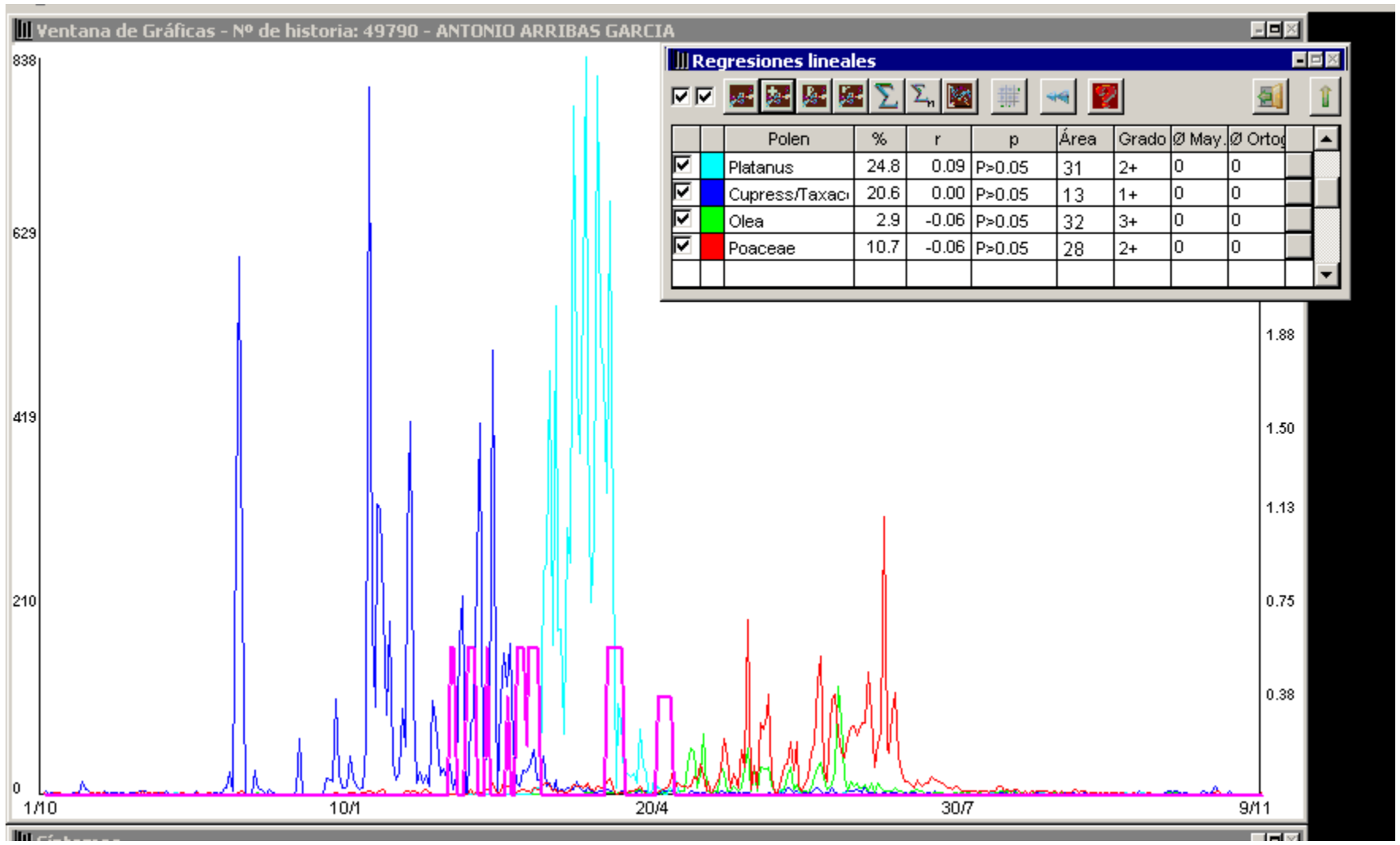
seasonal

	SPT	ISAC (ISU)
<i>Cupressus arizonica</i> nCup a 1	1+	< 0.3 (-)
<i>Platanus acerifolia</i> nPla a 1	3+	< 0.3 (-)
<i>Phleum pratense</i> rPhl p 1	2+	5.8 (2)
<i>Olea europaea</i> nOle e 1	3+	< 0.3 (-)

Clinical case using Alercon (2)



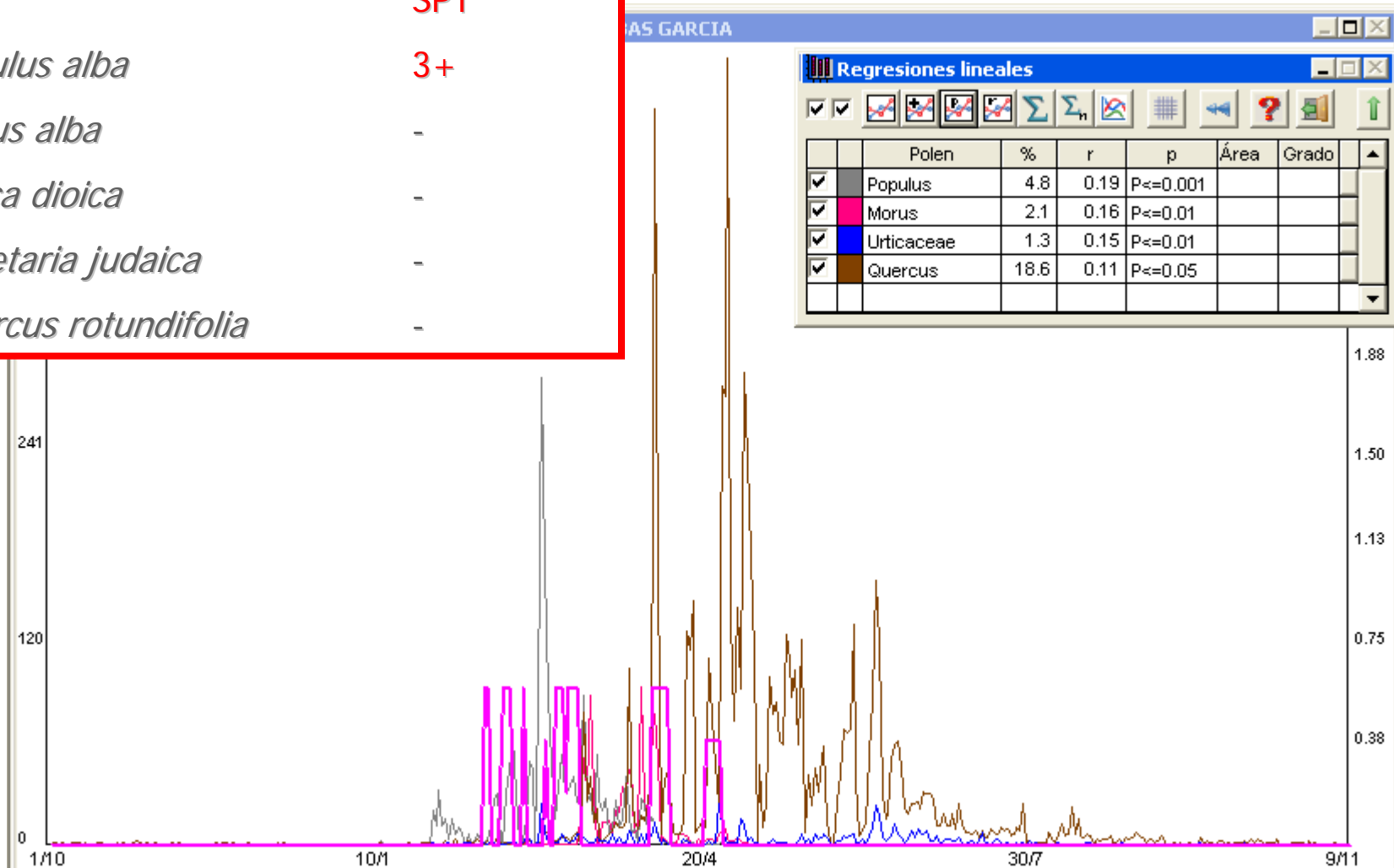
Clinical case using Alercon (2)



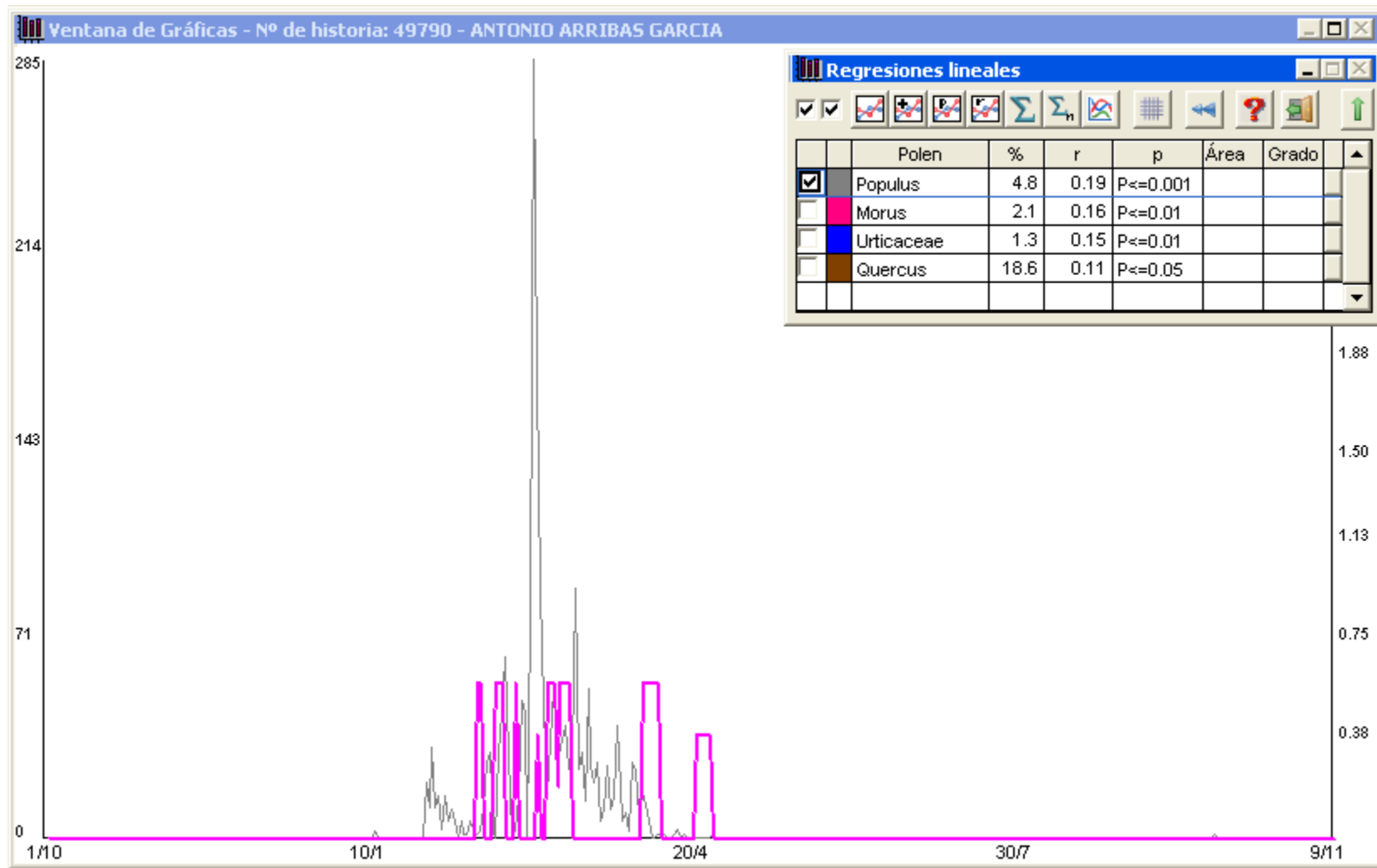


Clinical case using Alercon (2)

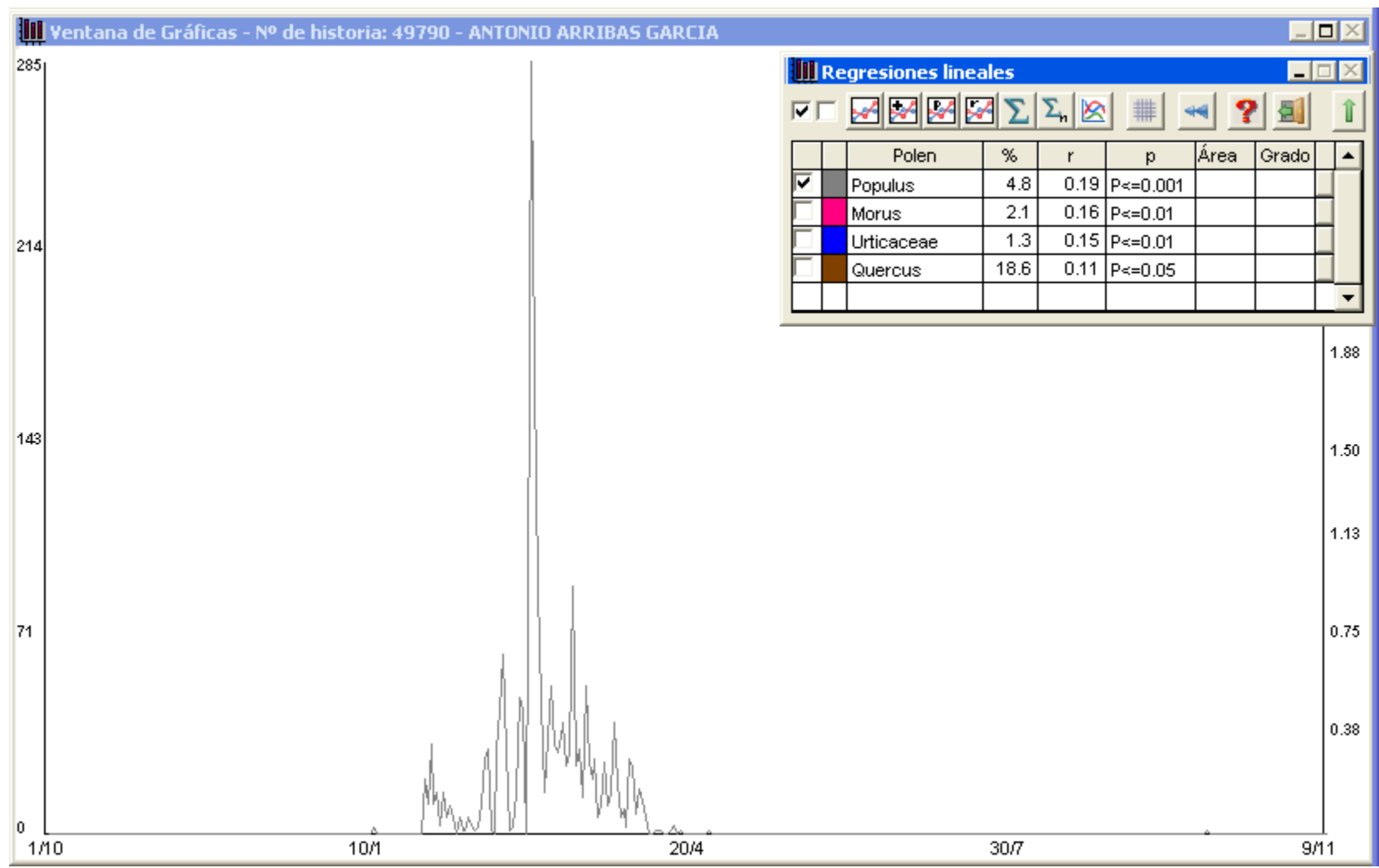
	SPT
<i>Populus alba</i>	3+
<i>Morus alba</i>	-
<i>Urtica dioica</i>	-
<i>Parietaria judaica</i>	-
<i>Quercus rotundifolia</i>	-



Clinical case using Alercon (2)



Clinical case using Alercon (2)



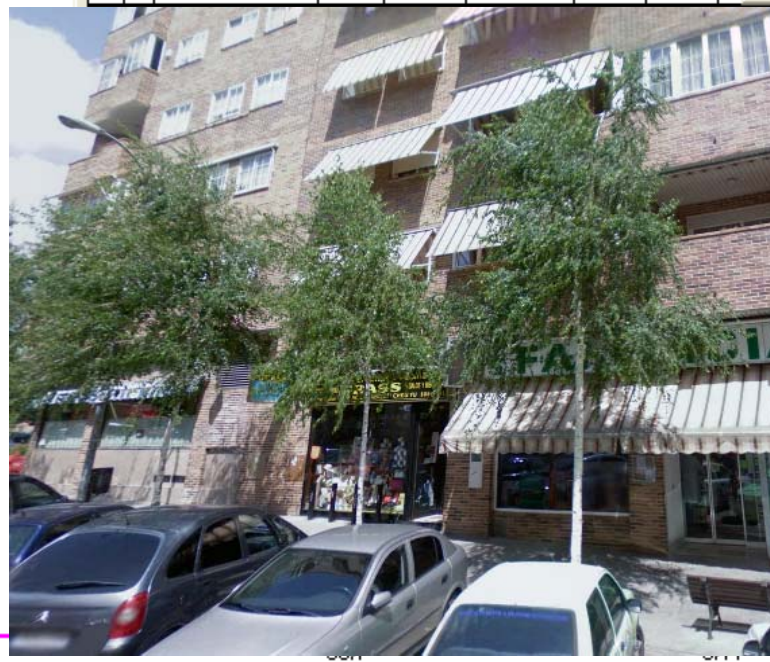
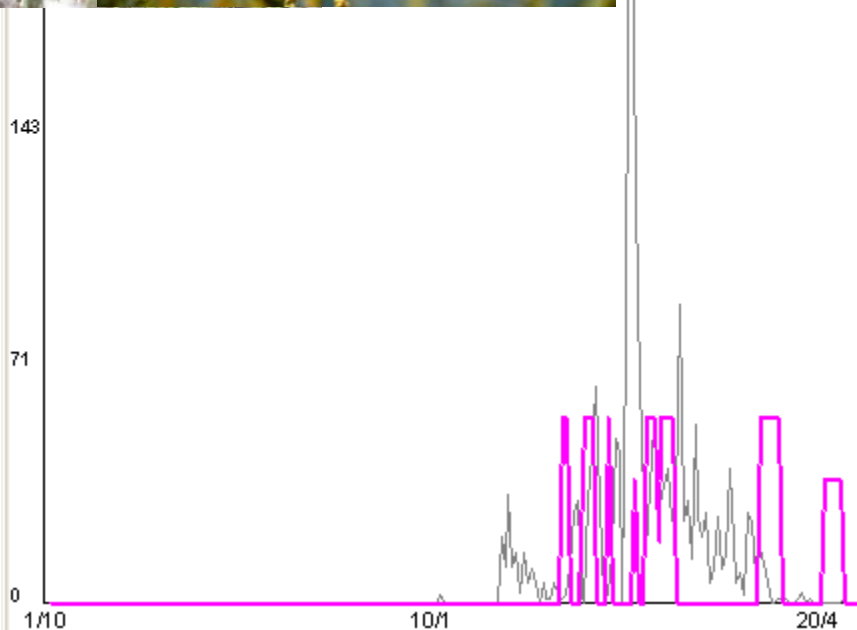
Clinical case using Alercon (2)



NIO ARRIBAS GARCIA

Regresiones lineales

	Polen	%	r	p	Área	Grado	
<input checked="" type="checkbox"/>	Populus	4.8	0.19	P<=0.001			
<input type="checkbox"/>	Morus	2.1	0.16	P<=0.01			
<input type="checkbox"/>	Urticaceae	1.3	0.15	P<=0.01			
<input type="checkbox"/>	Quercus	18.6	0.11	P<=0.05			





**Gracias por su
atención**