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OMICS International is a pioneer and leading science event organizer, which publishes around 500 open access journals and conducts over 500 Medical, Clinical, Engineering, Life Sciences, Pharma scientific conferences all over the globe annually with the support of more than 1000 scientific associations and 30,000 editorial board members and 3.5 million followers to its credit.

OMICS Group has organized 500 conferences, workshops and national symposiums across the major cities including San Francisco, Las Vegas, San Antonio, Omaha, Orlando, Raleigh, Santa Clara, Chicago, Philadelphia, Baltimore, United Kingdom, Valencia, Dubai, Beijing, Hyderabad, Bengaluru and Mumbai.

International Conference and Expo on Drug Discovery & Designing

Fulvi-H as possible treatment for viral diseases

Frankfurt, Germany, August 11-12, 2015

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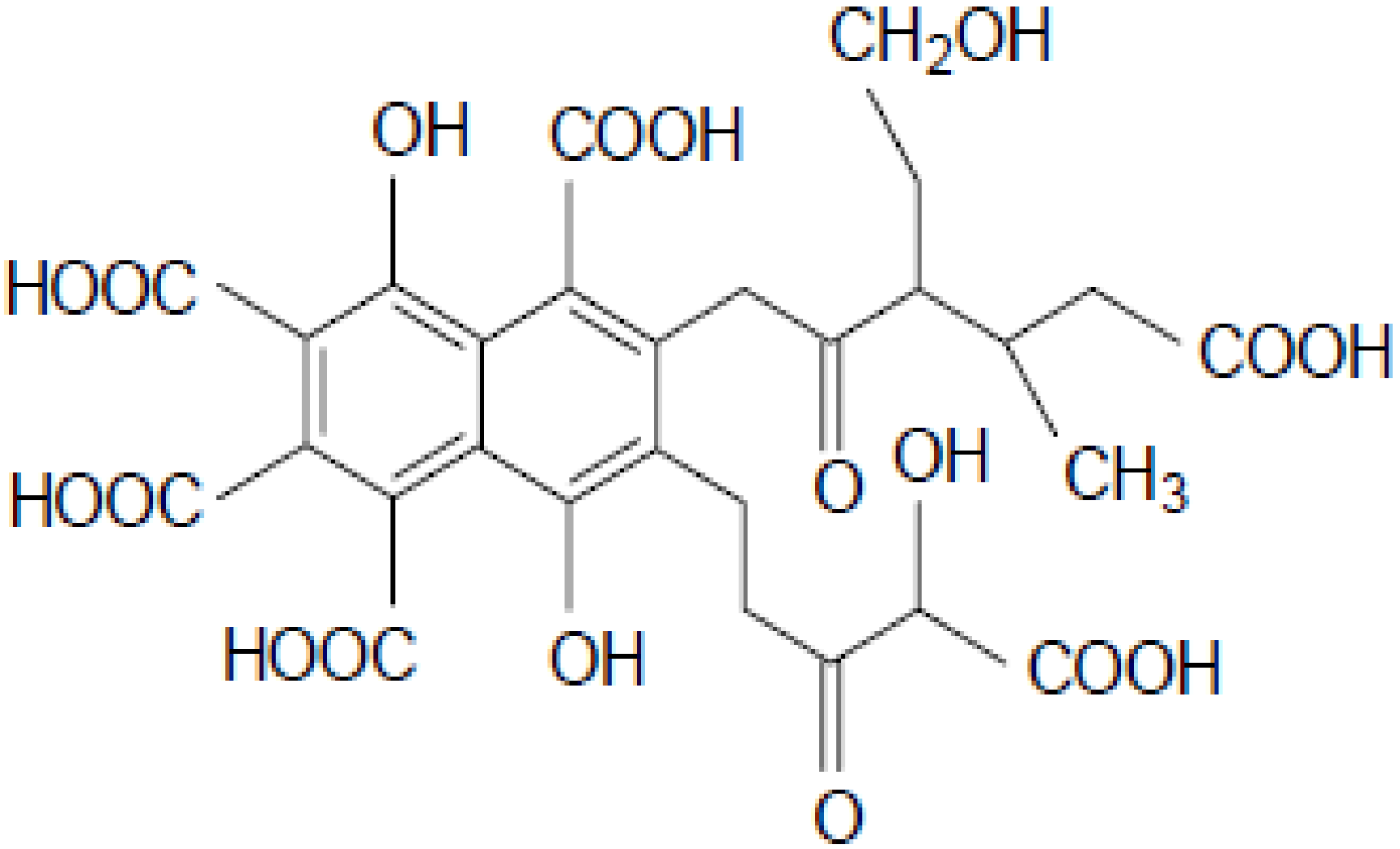
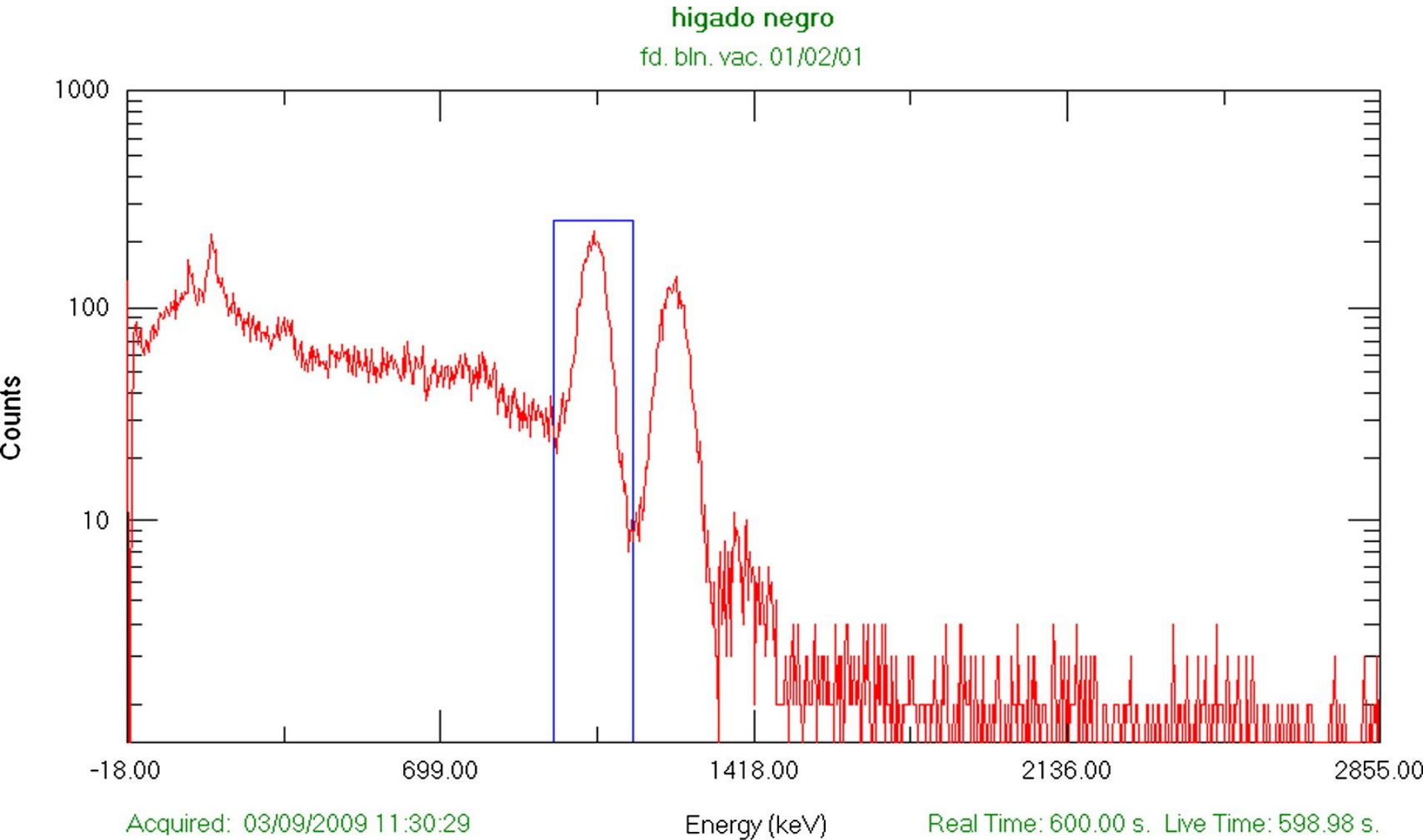
Structural Model of Fulvic acids, and reactive terminals

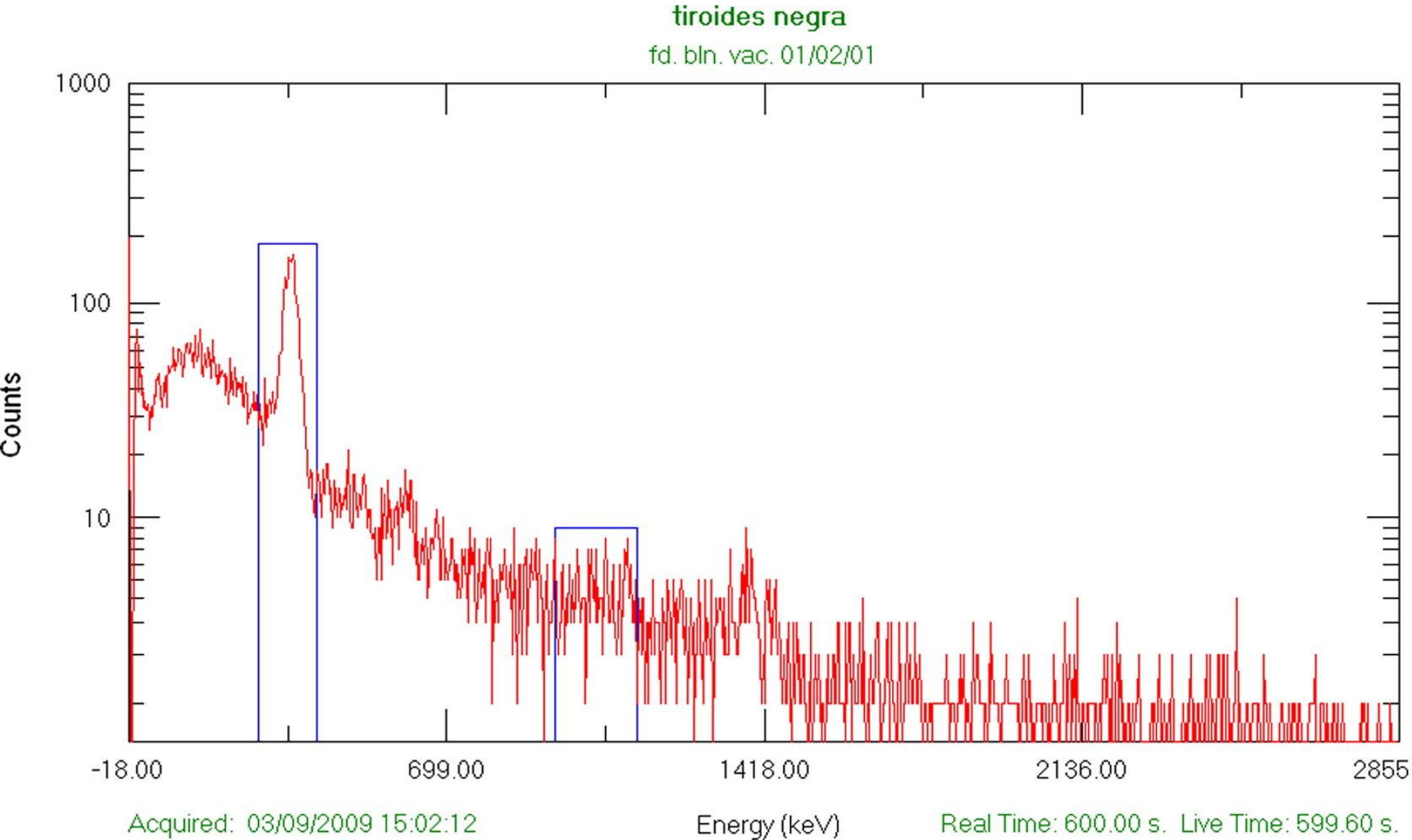


Two groups of rats, drinking plain water and fulvic acids solution respectively

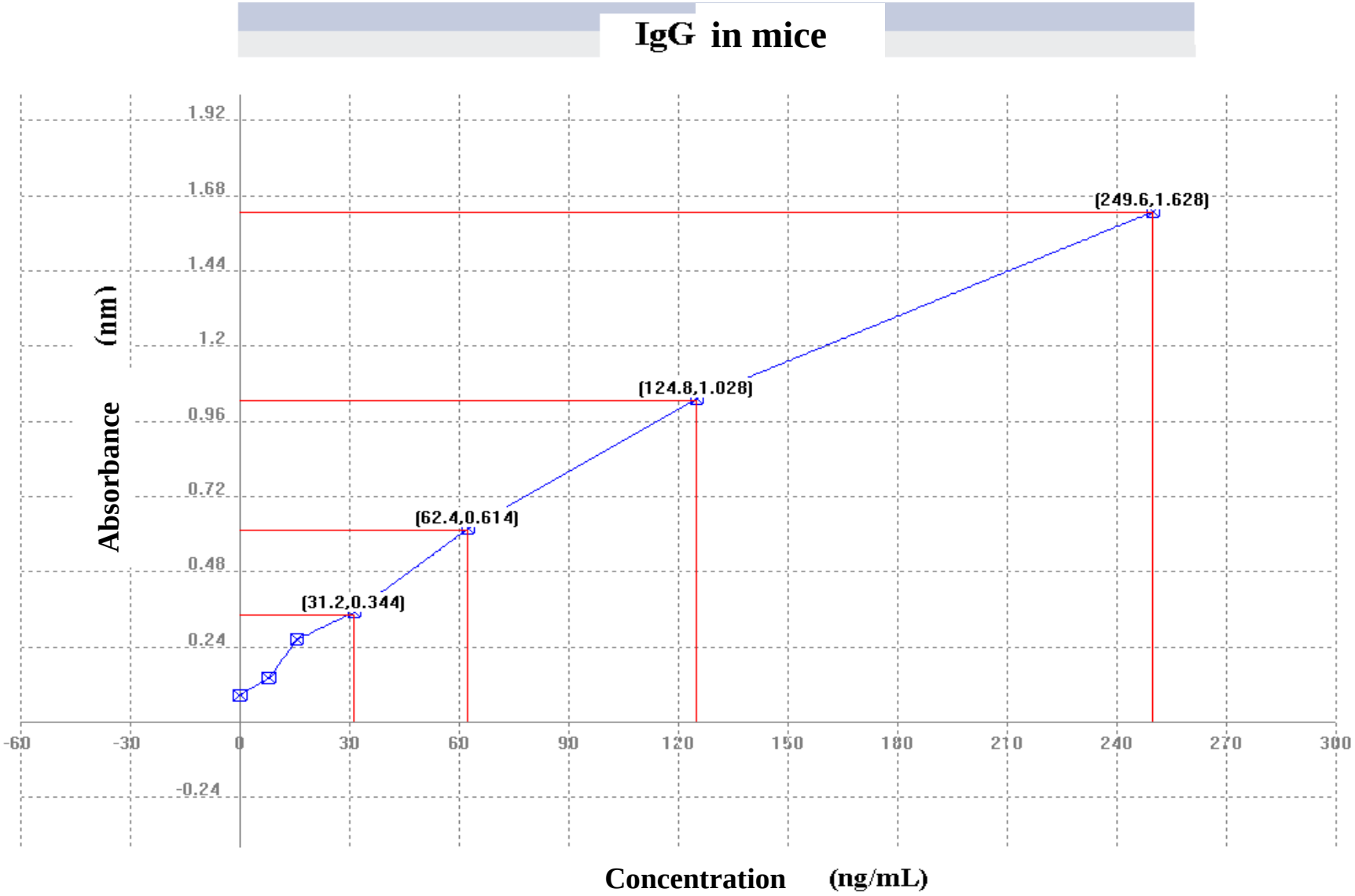
Iron labeled with ^{59}Fe, present in blood red cells, more than double when escorted by fulvic acids



Iodine labeled with ^{131}I, present in thyroid gland, more than double when escorted by Fulvic acids



Elisa standard curve of IgG in mice



Refractometer and scale used to measure IgT in rats blood serum

Table 2. Weight loss in mice during 2 months with and without FA.

	With FA	**Without FA**
Mice	**Weight (g)**	**Weight (g)**
1	43.6	42.6
2	40.2	41.6
3	43.7	52.6
4	43.8	43.8
5	40.8	41.1
6	38.4	45.2
7	44.8	40.5
8	45.7	44.4
9		45.4
10		43.7
Average (X)	**42.52±2.1**	**44.09±2.5**
Std. Dev. (σ)	**2.527**	**3.431**

$$\mathbf{weight loss} = \frac{\mathbf{44.09 - 42.52}}{\mathbf{42.52}} \times \mathbf{100} = \mathbf{3.7\%}$$

Table 3. Concentration of mice IgG without FA, with FA and with FA + minerals, concentration of FA = 6.75 mg/mL (1/100 of saturation).

	Without FA	**With FA**	**With FA + minerals**
Mice	**IgG (mg/mL)**	**IgG (mg/mL)**	**IgG (mg/mL)**
1	8.296	18.280	12.049
2	11.215	41.919	13.814
3	7.593	30.131	19.283
4	15.223	17.419	38.047
5	2.528	12.381	14.156
6	2.636	15.955	22.662
7	4.072	27.439	11.906
8	3.457	37.187	10.053
9	2.590	39.531	
Average (X)	**6.4±3.5**	**26.6±8.6**	**17.7±7.7**
Std. Dev. (σ)	**4.524**	**11.158**	**9.201**

Table 4. Concentration of mice IgT without FA, with FA and with FA + minerals, concentration of FA = 6.75 mg/mL (1/100 of saturation).

	Without FA	**With FA**	**With FA + minerals**
Mice	**IgT (mg/mL)**	**IgT (mg/mL)**	**IgT (mg/mL)**
1	58	66	66
2	62	68	70
3	48	66	70
4	62	76	62
5	54	65	70
6	60	76	62
7	70	72	70
8	72	70	68
9	61	68	
Average (X)	**60.75±6.56**	**69.66±3.21**	**66.50±2.93**
Std. Dev. (σ)	**7.851**	**4.183**	**3.505**

With FA

$$\text{IgT increment} = \frac{69.66 - 60.75}{60.75} \times 100 = 14.66\% \qquad \text{IgG increment} = \frac{26.6 - 6.4}{6.4} \times 100 = 315.62\%$$

With FA + minerals

$$\text{IgT increment} = \frac{66.5 - 60.75}{60.75} \times 100 = 9.46\% \qquad \text{IgG increment} = \frac{17.4 - 6.4}{6.4} \times 100 = 171.87\%$$

Table 5. Weight gain in mice during 2 months without FA, with FA and with FA + minerals, concentration of FA = 6.75 mg/mL (1/111 of saturation).

	Without FA		With FA		With FA + minerals	
	Weight (g)		Weight (g)		Weight (g)	
Mice	**Initial**	**Final**	**Initial**	**Final**	**Initial**	**Final**
1	27.0	45.3	26.8	44.2	28.6	43.4
2	26.8	41.8	28.7	44.8	27.7	42.2
3	26.7	45.9	27.2	41.5	29.4	41.8
4	26.9	45.8	27.7	44.5	28.5	43.9
5	26.5	42.0	27.3	41.6	28.6	45.2
6	27.8	41.8	30.5	39.7	28.6	43.1
7	28.9	44.9	26.3	38.9	28.1	42.2
8	26.3	41.3	27.9	41.2	28.6	46.6
9	26.2	37.2	27.0	32.0	27.7	
Average (X)	**27.0±0.65**	**42.8±2.19**	**27.7±0.96**	**40.9±3.03**	**28.4±0.40**	**43.5±1.38**
Std. Dev. (σ)	**0.849**	**2.861**	**1.252**	**3.947**	**0.528**	**1.650**

$$\mathbf{weight\ increment\ without\ FA} = \frac{\mathbf{42.8 - 27.0}}{\mathbf{27.0}} \times \mathbf{100} = \mathbf{58.52\%} \qquad \mathbf{weight\ increment\ with\ FA} = \frac{\mathbf{40.9 - 27.7}}{\mathbf{27.7}} \times \mathbf{100} = \mathbf{47.65\%}$$

$$\mathbf{weight\ increment\ with\ FA + minerals} = \frac{\mathbf{43.5 - 28.4}}{\mathbf{28.4}} \times \mathbf{100} = \mathbf{53.16\%}$$

Table 6. Mineral concentrations added to FA.

Salt	Mineral	Concentration (mg/mL)
$FeSO_4 \cdot 7H_2O$	Fe^{2+}	0.0372
$MgSO_4 \cdot 7H_2O$	Mg^{2+}	0.0182
$CaCl_2 \cdot 2H_2O$	Ca^{2+}	0.0505
K_2HPO_4	K^+	0.0851
$MnCl_2 \cdot 4H_2O$	Mn^{2+}	0.0024
Na_2SeO_4	Se^{6+}	0.0041
KI	I^-	0.1528

Table 7. Table 7. IgT initial and final concentration in rats after 2 months with and without FA, concentration of FA = 10 mg/mL (1/75 of saturation).

	Without FA			With FA	
	IgT (mg/mL)			IgT (mg/mL)	
Rats	**Initial**	**Final**	**Rats**	**Initial**	**Final**
1	66	68	**11**	70	70
2	70	69	**12**	65	70
3	66	63	**13**	68	68
4	64	67	**14**	62	70
5	60	64	**15**	68	68
6	64	66	**16**	60	69
7	66	70	**17**	62	72
8	68	70	**18**	64	72
9	70	68	**19**	62	71
10	66	70	**20**	62	70
Average (X)	**66±2.13**	**67.5±1.79**	**Average (X)**	**64.3±2.38**	**70±1.01**
Std. Dev. (σ)	**2.98**	**2.50**	**Std. Dev. (σ)**	**3.33**	**1.41**

$$\mathbf{IgT\ increment\ without\ FA} = \frac{\mathbf{67.5 - 66}}{\mathbf{66}} \times \mathbf{100} = \mathbf{2.3\%} \qquad \mathbf{IgT\ increment\ with\ FA} = \frac{\mathbf{70 - 64.3}}{\mathbf{64.3}} \times \mathbf{100} = \mathbf{8.86\%}$$

Table 8. Initial and final weights after 2 months with and without FA, concentration of FA = 10 mg/mL (1/75 of saturation).

	Without FA			With FA	
	Weight (g)			Weight (g)	
Rats	**Initial**	**Final**	**Rats**	**Initial**	**Final**
1	303	400	**11**	311	400
2	324	409	**12**	305	396
3	310	424	**13**	305	411
4	307	396	**14**	302	377
5	301	409	**15**	315	382
6	312	468	**16**	312	414
7	280	396	**17**	311	379
8	316	463	**18**	302	405
9	323	416	**19**	303	379
10	325	431	**20**	313	374
Average (X)	**309.9±9.58**	**421.2±18.6**	**Average (X)**	**307.9±3.56**	**391.7±10.87**
Std. Dev. (σ)	**13.39**	**26**	**Std. Dev. (σ)**	**4.97**	**15.2**

$$\text{weight increment without FA} = \frac{421.2 - 309.9}{309.9} \times 100 = 35.91\%$$

$$\text{weight increment with FA} = \frac{391.7 - 307.9}{307.9} \times 100 = 27.21\%$$

Fig. 16.- Shuligat (India), Mumiyo (Nepal), natural mushroom used empirically for injuring treatment after centuries.

Conclusion: Fulvic acids seems to be a suitable treatment for virus infection diseases, such as hepatitis, HIV, herpes Zoster. Therefore, this research seems to deserve a reliable medical protocol to apply this treatment to human beings.

LET US MEET AGAIN..

We welcome you to our future conferences of OMICS International

2nd International Conference and Expo

on

Drug Discovery & Designing

On

October -31 November-02, 2016 at **Istanbul, Turkey**

http://drug-discovery.pharmaceuticalconferences.com/

Thank you very much for your attention and for being here!!!