



### **Research techniques**

I have developed a wide range of research techniques:

- Biochemistry: Fatty acid chemistry, lipid extraction, thin layer chromatography, gas chromatography;
- Physiology: Respirometry, energy assimilation, nutritional physiology, gastrointestinal physiology, energy content calculation;
- Statistics: able to analyse large datasets, analyses of variance, generalized linear model, phylogenetic generalised least squares regression;
- Animal keeping: familiar with maintenance and need of laboratory rodents and lagomorphs;

### **Supervision and teaching**

- supervised graduate students during my PhD. Analysed and discussed their work and explained scientific work as well as literature search to them.
- corrected written exams of undergraduate students
- acted as tutor in practicals throughout my PhD

### **Communication and Outreach**

- I have presented a talk at three major scientific international conferences (see appendix) and presented a talk there. I have also made presentations within my department, at my university and for hunting associations in Austria.
- Since 2005 Correspondent for popular section of Journal of Experimental Biology “Outside JEB”.
- Took part in a public event organised by the Institute in the public- explained ongoing projects to schoolchildren and parents, international guests and authorities.
- Invited a professor from Alaska to give a talk at institute and organised funding for his trip.
- Presented PhD project on the radio and gave an interview on European Brown Hares.

### **ADDITIONAL SCIENCE PROJECTS AND EXPERIENCE**

I assisted in a laboratory during my studies pipetting chemicals and analysing blood samples of pets, participated in field work by collecting faecal samples of hares, recorded abundance of certain plant species at Lake Neusiedl, the habitat of a settled population of Prezwalski horses, helped catching and marking common hamsters, participated at hunting events (hares, pheasants) and determined sex and age of animals there, wrote articles for hunting magazines.

Organised and planned the realisation of an elaborate project on lactation energetics in brown hares with over 100 juveniles per year, conducted and controlled sampling and chemical analyses, dissected mammals and took muscle samples;

### **REFEREES**

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## APPENDIX

### *Thesis, Diploma work*

Valencia TG (2006) Membrane fatty acids in mammals- cold adaptation, metabolic rate, lifespan. Dissertation, University of Vienna, Veterinary University of Vienna.

Valencia TG (2002) Der Einfluss von Fettsäuren auf die Kälteanpassung beim Europäischen Feldhasen (*Lepus europaeus*). Diploma- Thesis, University of Vienna.

### *Peer reviewed Articles*

Valencia TG, Tataruch F, Ruf T (subm.) Neither fish, nor fowl- Young hares are precocial but expensive.

Valencia TG, Ruf T (2007) N-3 polyunsaturated fatty acids impair lifespan but have no role for metabolism. *Aging Cell* 6, 15-25.

Tuf R, Valencia T, Tataruch F, Arnold W (2006) Running speed in mammals increases with muscle n- 6 polyunsaturated fatty acid content. *Plos One* 1, e65. doi 10.1371.

Valencia TG, Arnold W, Tataruch F, Tuf R (2003) High content of polyunsaturated fatty acids in muscle phospholipids of a fast runner, the European brown hare (*Lepus europaeus*). *J. Comp. Physiol. B* 173: 695-702.

### *Other*

Valencia TG, Tataruch F, Steineck T, Arnold W (2006) Wie gesund ist Wildbret? Fettsäurezusammensetzung, Umweltschadstoffe und Gefahr von Zoonosen. *Internist. prax.* 46: 911-920.

### *Popular Science*

#### “Outside JEB”

Valencia T (2007) Naked carp take a salty holiday. In “Outside JEB”. *J. Exp. Biol.* 210 (11) v.

Valencia T (2007) BMR under the spotlight. In “Outside JEB”. *J. Exp. Biol.* 210 (3) vi.

Valencia T (2006) Male neurons respond to female pheromones. In “Outside JEB”. *J. Exp. Biol.* 209 (21) vi.

Valencia T (2006) Protein complex is candidate hormone for hibernation. In “Outside JEB”. *J. Exp. Biol.* 209 (15) vii.

Valencia T (2006) Sleep concerns: is napping linked to body condition? In “Outside JEB”. *J. Exp. Biol.* 209 (9) iv.

Valencia T (2006) Eels holding their breath: no role for protein kinases. In “Outside JEB”. *J. Exp. Biol.* 209 (3) v-a.

Valencia T (2005) Eat little, die late? In “Outside JEB”. *J. Exp. Biol.* 208 (17) vii.

Valencia T (2005) Pythons pay the price for proteins. In “Outside JEB”. *J. Exp. Biol.* 208 (11) v.

Valencia T (2005). Weight watchers: Why reindeer stay slim. In “Outside JEB”. *J. Exp. Biol.* 208 (7) vii.

### *Hunting Magazines*

Valencia T (2007) Störche: Von Symbolen, Aufwinden und Handymasten. *Österreichs Weidwerk* 4: 10-12.

Valencia, T. (2006): Schneehasen - Lebenskünstler im Hochgebirge . *Österreichs Weidwerk* 2006, (2), 14-16.

Valencia T, Tuf R (2005) Wildtiere: Schnelligkeit entscheidet. *Österreichs Weidwerk* 5: 14-16.

Valencia T, Tuf R (2004) „Gesundes Fett“ im Wildfleisch. Österreichs Weidwerk 12: 12-13.

*Presentations and Conference proceedings*

Valencia, T.G., Tuf R. (2007): Membrane fatty acids and maximum lifespan- a reassessment. SEB Annual Meeting, Glasgow, UK, 31.3- 4.4.2007

Valencia, T.G., Tuf R. (2007): Lactating hares are limited by the capacity of the alimentary tract . SICB Annual Meeting, Phoenix, AZ, USA, 3.-7.1.2007

Valencia, T.G., Tataruch, F., Arnold, W. (2005): Fettsäurezusammensetzung von Wildtieren, insbesondere des Feldhasen. In: P. Paulsen (ed.): Niederwild - Wildtiergesundheit, Lebensmittel, Sicherheit und Qualität.

Institut für Fleischhygiene, Fleischtechnologie und Lebensmittelwissenschaft , Wien, p.61-67.

Tataruch, F., Valencia, T. (2005): Fettsäuremuster im Wildbret verschiedener Wildarten.

In: Cichna-Markl, M., Sontag, G. (Eds.): Fisch und Wild als Lebensmittel, Seminar Lebensmittel tierischer Herkunft ,Teil 2. Gesellschaft Österreichischer Chemiker, Wien, p. 163-167.

Valencia, T.G., Hauhart, B., Tataruch, F., Arnold, W., Hackländer, K., Tuf, R. (2004): Impact of polyunsaturated fatty acids on performance of European hares (*Lepus europaeus*) . 2nd World Lagomorph Conference, Vairão, Portugal, 26. - 31.07.2004, p. 52.