

## CURRICULUM VITAE

**CARMEN SÁENZ**, Doctor in Pharmacy, Field: Food Technology (University of Madrid, Spain, 1979). Full Professor, University of Chile (2002). Since 1979 she is a professor in the Faculty of Agricultural Sciences at the University of Chile (Agronomy, M.Sc. and Ph.D. programs). Director of the Ph.D. Nutrition and Foods Program (University of Chile, 2006-2008), Director of the Graduate School of her Faculty (2001-2003) and head of Dept. Agroindustry and Oenology (2010-2012). She was the Coordinator of the Agroindustries & Post-harvest Working group of FAO-ICARDA CactusNet (1996-2017) and now she is the General Coordinator of the FAO-ICARDA Cactusnet (<http://www.cactusnetwork.org/>). Leader of the Agri-food group of CYTED ([www.cytmed.org](http://www.cytmed.org)) and member of the Chilean Academy of Pharmacy. Research activities: processing and uses of fruits and vegetables, mainly fruit from arid zones (cactus pear, pomegranate, etc.). Invited speaker in several congresses (Tunis, Egypt, Israel, France, Mexico, Spain, Peru, Morocco, Argentina, and South Africa, Brazil and Chile). She has published more than 50 papers including a FAO book with other authors. She has participated as teacher in several work-shops and extension courses for little farmers.

### Research support:

Utilization of succulent plant species with agroproductive potential as an alternative for sustainable diversification in arid zones. 2015-2019. FIA (Ministry of Agriculture, Chile). PYT-2016-0151. Co-director.

Technical and agroindustrial validation of fruit crops of low water requirement for the valleys of Codpa and Lluta. FIC-Arica y Parinacota. Código Código BIP 30209072-0 (2014-2015). Co-researcher.

Extracción de betalaínas de *Opuntia* aplicando ultrasonido y estabilización por microencapsulación. 2013-2016. Project CONICYT (Chile)-CONACYT (México). PPCI 12015. Main researcher (Chile).

Extraction of *Opuntia* betalains using ultrasound and stabilization by microencapsulation. 2012-2014. Project FIC-Coquimbo. BIP 30127538-0. Co-researcher.

Cactus pear (*Opuntia ficus-indica*) colorants obtained by membrane technologies separation and microencapsulation. Stability and applications in foods. 2011-2013. FONDECYT N° 1110126. Main researcher.

### Publications

Robert, P., Torres, V., García, P., Vergara, C., **Sáenz, C.** 2015. The encapsulation of purple cactus pear (*Opuntia ficus-indica*) pulp by using polysaccharide-proteins as encapsulating agents. LWT-Food Sci. Technol. 60 (2):1039-1045

Estévez, A.M., Figuerola, F., Bernuy, E. and Sáenz, C. 2014 Dietary fiber concentrate from Chilean algarrobo (*Prosopis chilensis* (Mol.) Stuntz) pods: purification and characterization. Food Sci. and Technol. Int. 20(8) 629-635.

Vergara, C., Saavedra, J., Sáenz, C., García, P., Robert, P. 2014. Microencapsulation of ultrafiltered cactus pear (*Opuntia ficus-indica*) extracts and betanin stability during storage. Food Chem. 157:246-251

Contador, L., Shinya, P., Bungler, A., Sáenz, C., and Infante, R. 2014. Training a sensory panel for describing texture in peach and nectarines. J. Food, Agricul. Environ. 12 (3&4): 65-70.

**Sáenz, C.**, Yoong, M., Figuerola, F., Chiffelle, I. and Estevez, A.M. 2012. Cactus pear cladodes powders as dietary fibre source: purification and properties. Int. J. Food Sci. Nutr. 63 (3)283-289.

**Sáenz, C.**, Tapia, S., Chávez, J. and Robert, P. 2009. Microencapsulation by spray drying of bioactive compounds from cactus pear (*Opuntia ficus-indica*). Food Chem. 114: 616-622.

**Sáenz, C.**, Sepúlveda, E., Pak N. and Lecaros, M. 2010. Chemical and physical characterization of cactus cladodes (*Opuntia ficus-indica*) powder. Italian J. Food Sci. 22 (4): 416-422.

Sepúlveda, E., **Sáenz, C.**, Aliaga, E., and Aceituno, C. 2007. Extraction and characterization of mucilage in *Opuntia* spp. J. Arid Environ. 68 (4): 534-545.

### Book and book chapters:

**Sáenz** et al., 2014. FAO book: Agro-industrial utilization of cactus pear (2014) <http://www.fao.org/docrep/019/a0534e/a0534e.pdf>

Yahia E. and **Sáenz, C.** Cactus pear (*Opuntia* spp.), 2011. Postharvest Biology and Technology of Tropical and subtropical Fruits. E. Yahia (ed). Vol. 2, Chapter 14, pp. 290-329. Woodhead Publisher, Cambridge, UK.

**Sáenz, C.**, Corrales, J. and Aquino, G. 2002. Nopalitos, mucilage, fiber, and cochineal. pp. 211-234. In: Cacti: Biology and uses. P.S. Nobel (ed). University of California, Los Angeles. 280 pag.