

Major Spanish Contributions to Spine and Spine Deformity Surgery

Prepared by Joan Bagó, MD, PhD; Enrique Izquierdo, MD; Francisco Javier Sánchez Pérez-Gruoso, MD; Carlos Villanueva, MD, PhD; Teresa Bas, MD; Ferran Pellisé, MD, PhD; and SRS Historians
Special Acknowledgement for Katie Dold, MLS

Hear from the Contributors:



Left to right: Ferran Pellisé, Carlos Villanueva, Enrique Izquierdo, Francisco Javier Sanchez Pérez-Gruoso, Joan Bagó. Far right: Ampar Cuxart, MD, PhD.

"The SRS represented to me a lighthouse that guided my professional career. I'm very proud of being able to take part in this society for many years."

Francisco Javier Sanchez Pérez-Gruoso, MD



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1940-1970: Pioneers and Origins

The Spanish Orthopedic Surgery and Trauma Society (SECOT)

Also known as Sociedad Española de Cirugía Ortopédica y Traumatología

1935

SECOT founded.

1936-1946

SECOT suspended its activity during the Spanish Civil War (1936-1939) and onward.

1947

SECOT Refoundation and 1st Annual Meeting.

1948

2nd Annual Meeting. The first official report, "Treatment of Scoliosis," was presented by Dr. José Troncoso Rozas.



José Troncoso Rozas

Training:

Instituto Rizzoli, Bologna

Professional Activity:

Hospital Municipal Vigo

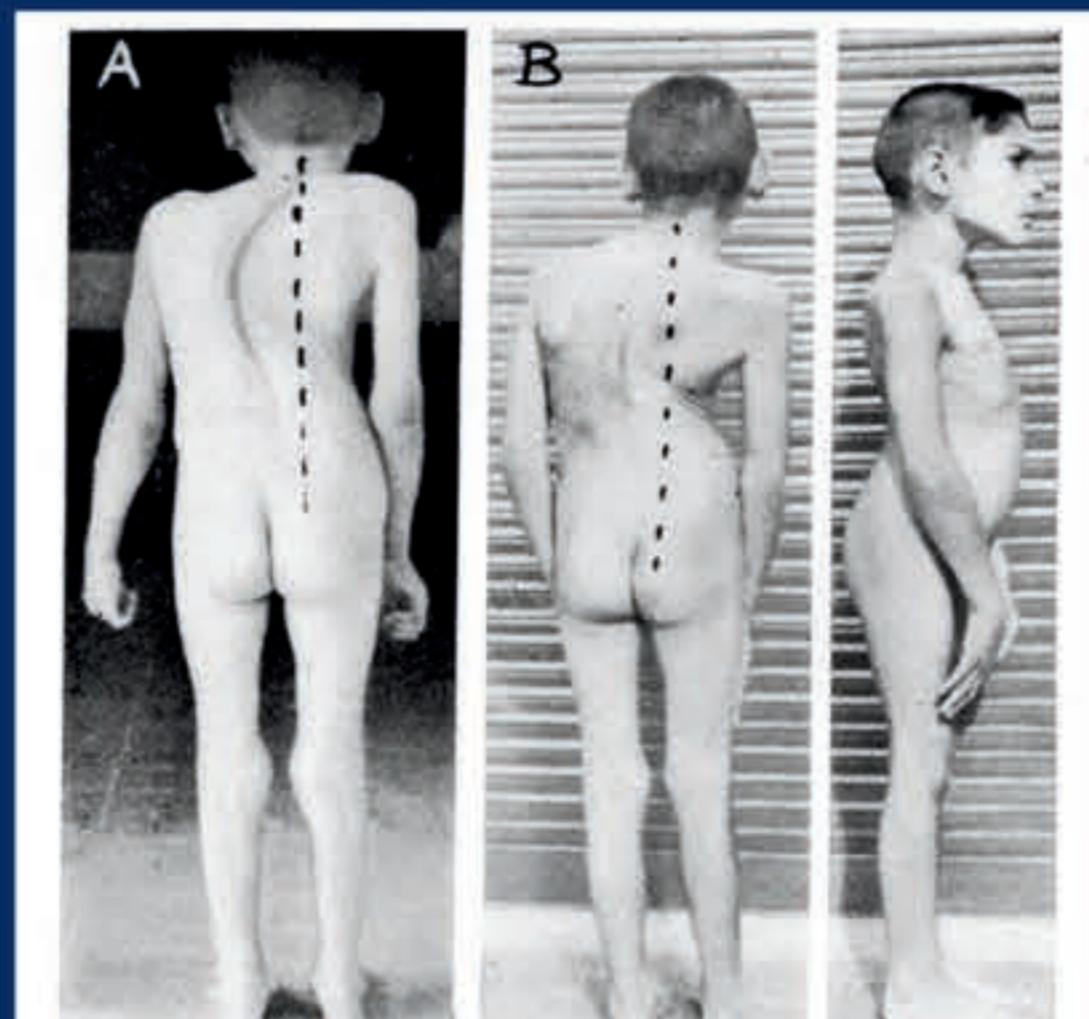
Hospital Povisa Vigo

"The Treatment of Scoliosis" was the first report describing scoliosis treatment in Spain. It includes non-operative and operative treatment and mentions basic principles of treatment.

The case series was treated between 1939-1947. The series included 80 cases: 49 female, 31 male.



Above: "The Treatment of Scoliosis" (1948)



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1940-1970: Pioneers and Origins



Vicente Sanchis Olmos

Training:
Instituto Rizzoli, Bolonia

Professional Activity:
Hospital Provincial Madrid

1947-Director and founder of *Revista Española de Cirugía Ortopédica y Traumatología*, the official journal of SECOT.

Papers:

Osteotomy of the Spine in Ankylosing Spondylitis (1952)

Direct Approach to the Vertebral Bodies in Pott's Disease (1953)

These are, respectively, the second and third Spanish publications related to the treatment of spinal deformities.

Antonio Hernández-Ros

Professional Activity:
Hospital de la Princesa, Madrid

Papers:
Pathogenic Scheme of Scoliosis (1953)

Cervicobrachial Algia (1953)

The Discography in Lumbosciatica (1956)

Monograph:

New Operative Techniques in the Treatment of Scoliosis. (Nuevas técnicas operatorias en el tratamiento de la escoliosis.) 1965. Medici in onore di Pasquale del Torto. Ed. Napoli.

Dr. Hernández-Ros was the third Spanish author writing on the surgical treatment of scoliosis.

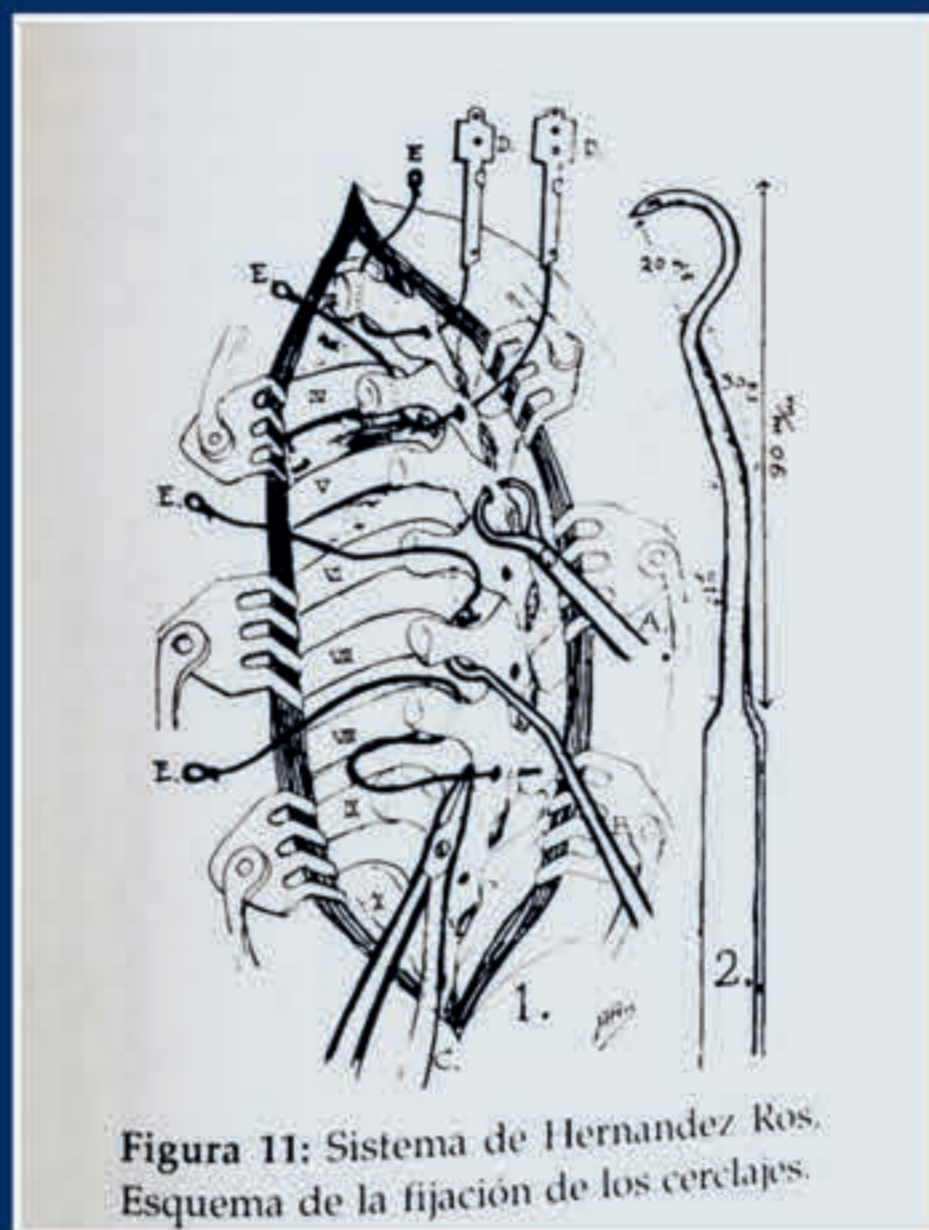
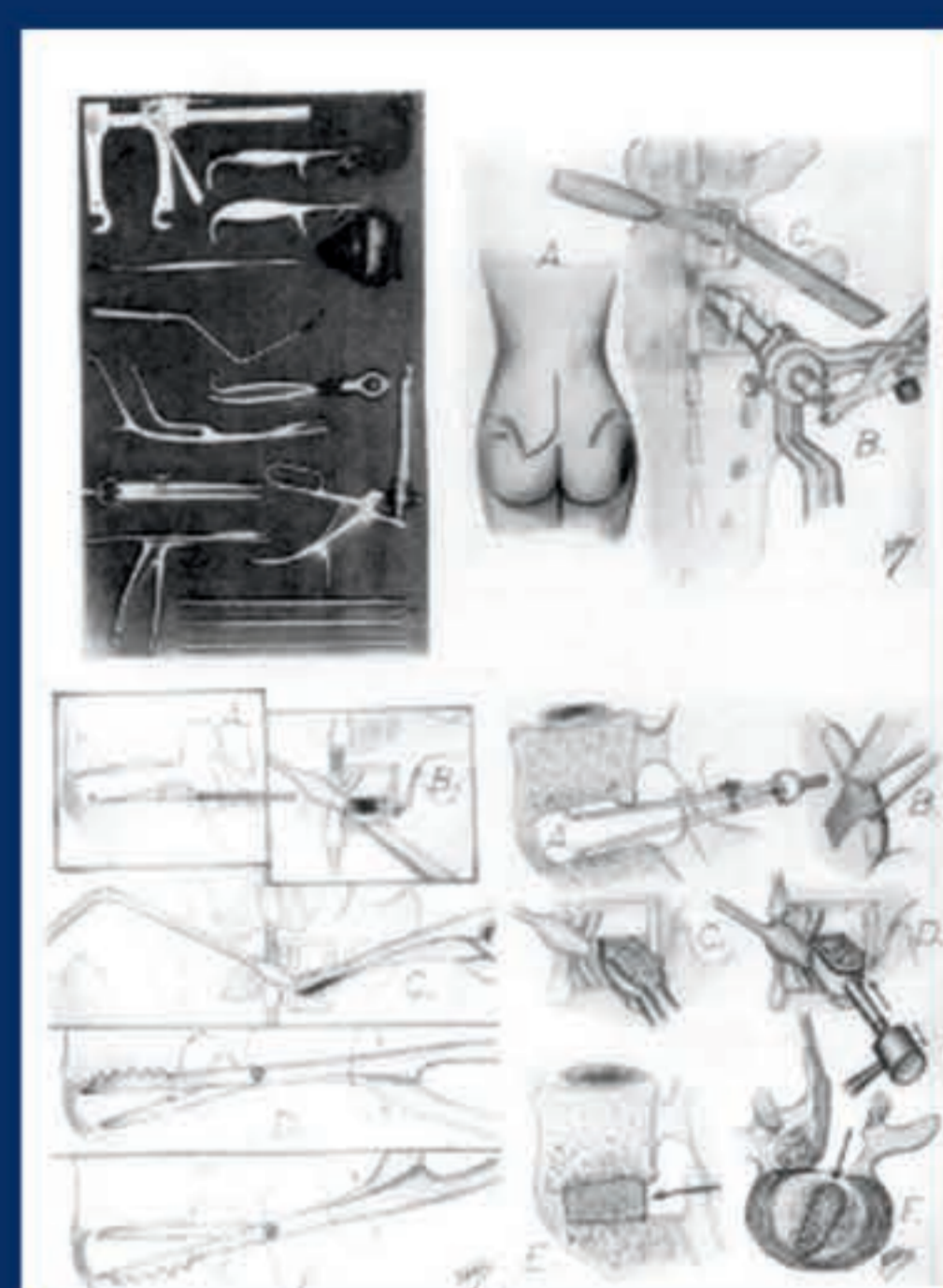
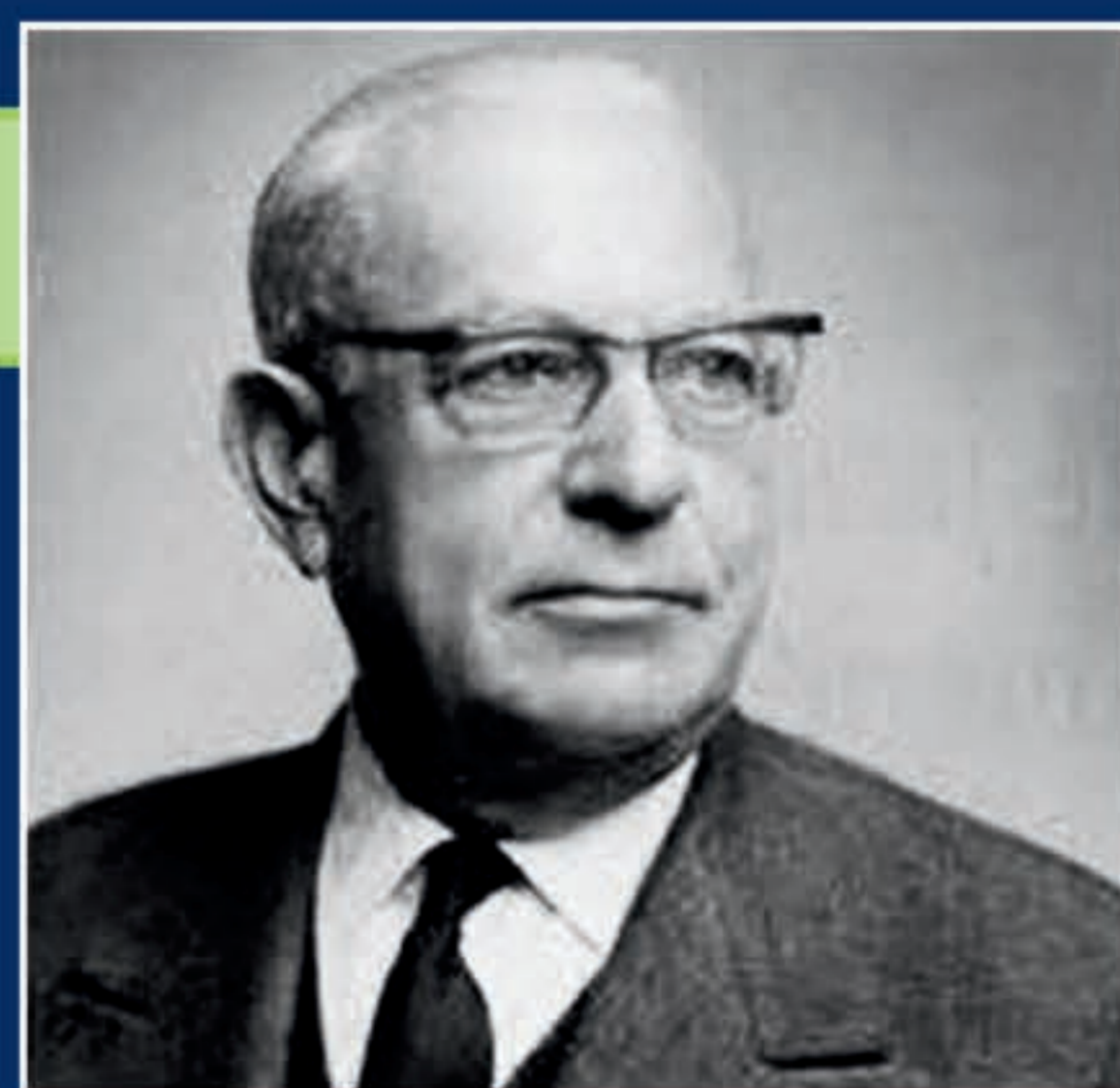


Figura 11: Sistema de Hernandez Ros. Esquema de la fijación de los cerclajes.

Above: Hernandez Ros system. Diagram describing the wire spine fixation technique.



Right: The posterior lumbar interbody fusion (1965).

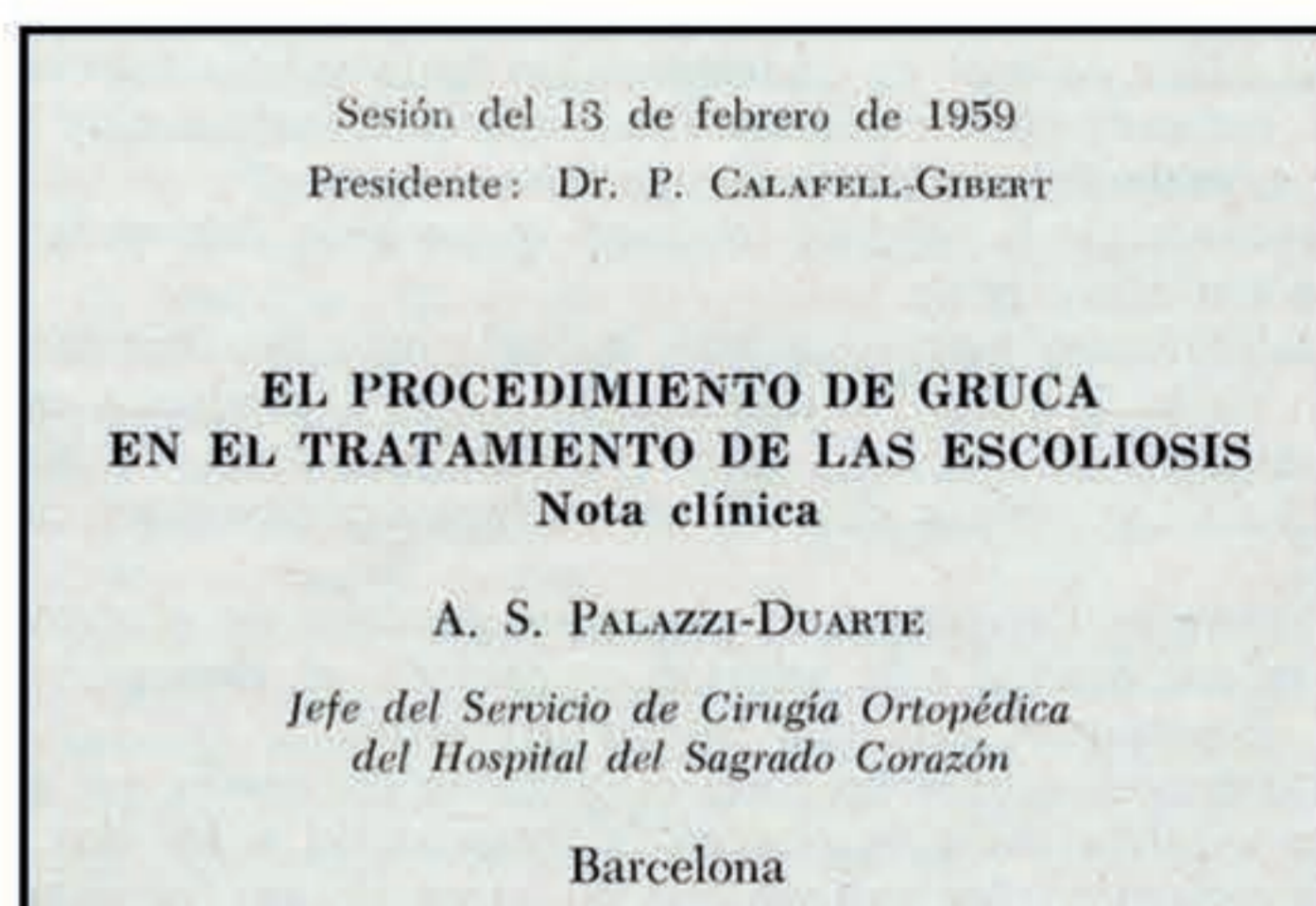


A. Santos Palazzi

Training:
Instituto Rizzoli, Bolonia

Hospital Mount Sinai, New York

Professional Activity:
Hospital del Sagrado Corazón, Barcelona



Above: "The Gruca Procedure in Scoliosis Treatment" (1959)

Papers:

Palazzi, AS & Cañadell J. "The Bosworth operation: Treatment of choice for lumbar instability." *Medicina Clínica*, 1951; 5:357-62.

Palazzi AS & Madrigal JJ. "Modification of the Bosworth technique for lumbosacral arthrodesis." *Anales de Medicina y Cirugía*, 1959; 5(45):273-276.

Francisco Gomar

Professional Activity:
Hospital Clínico, Valencia

1978- Professor of Orthopedic Surgery and Traumatology, Universidad de Valencia

Papers:
Current Issues in Scoliosis Surgery (1968)



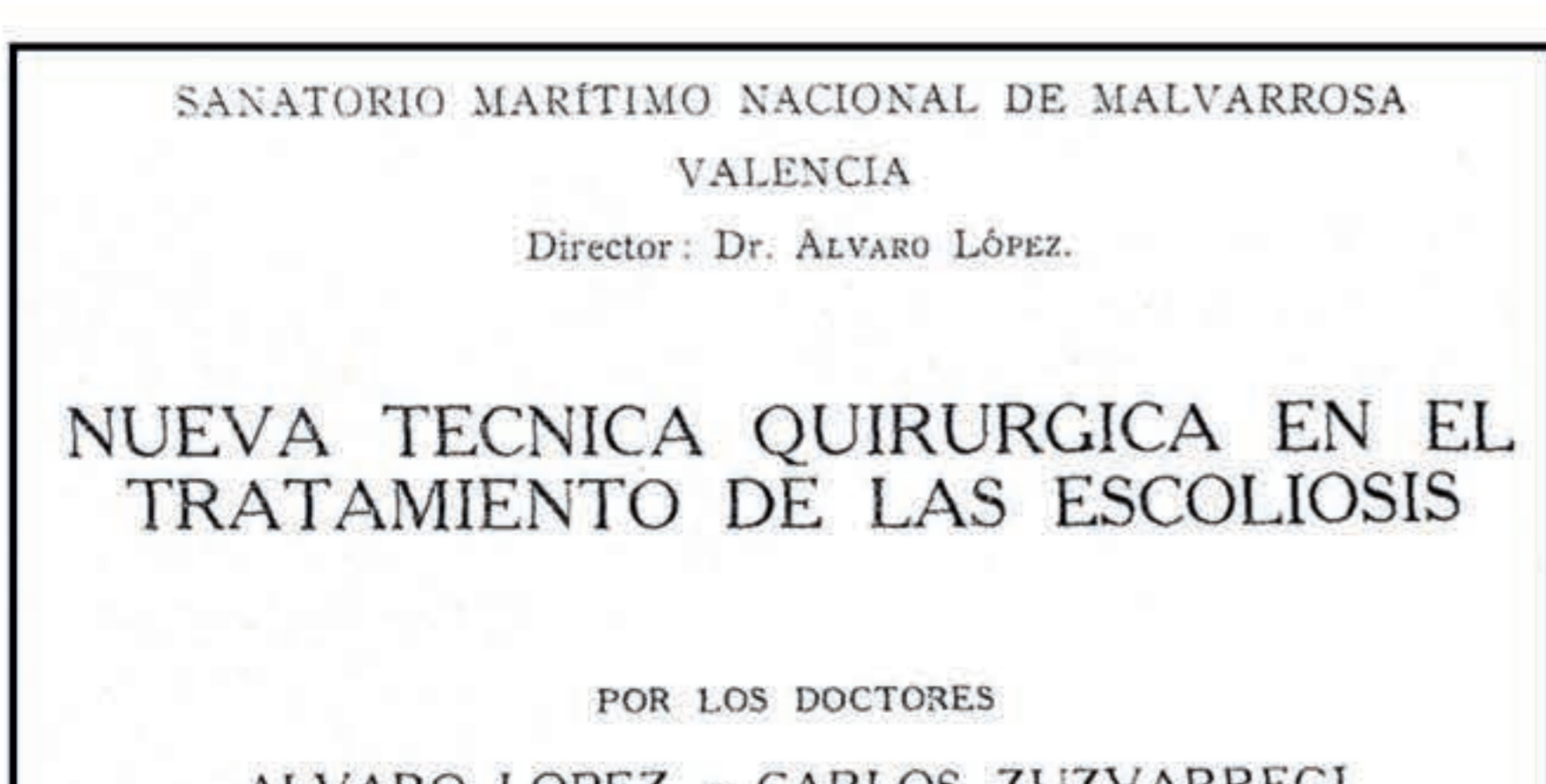
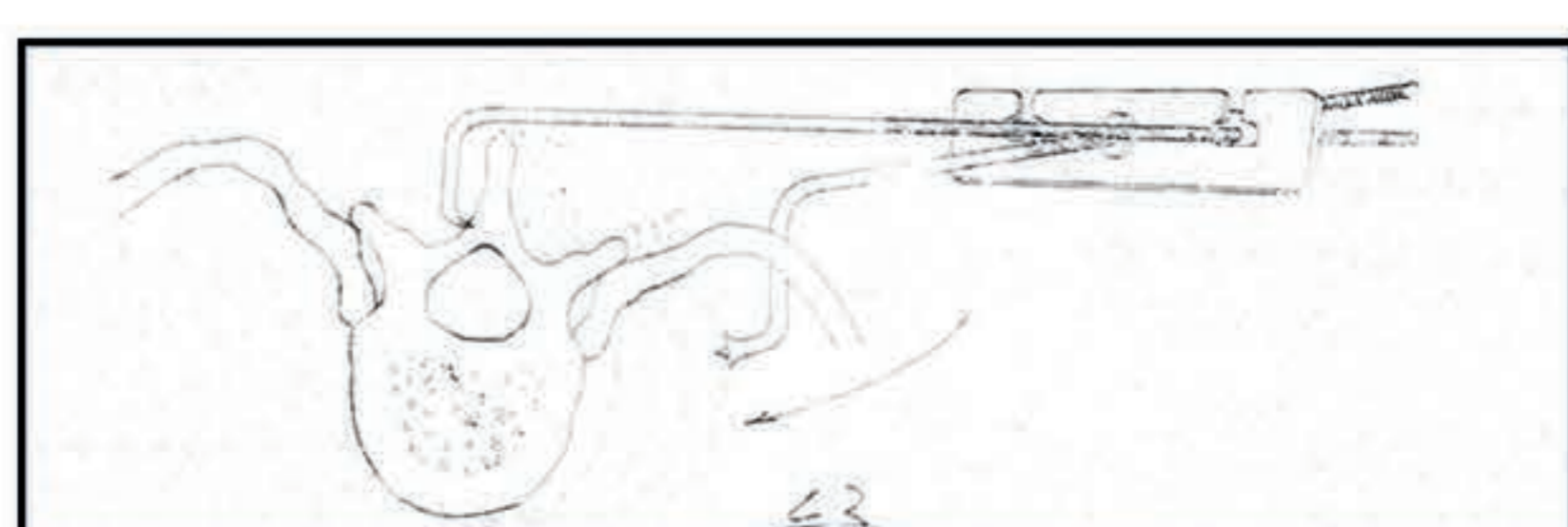
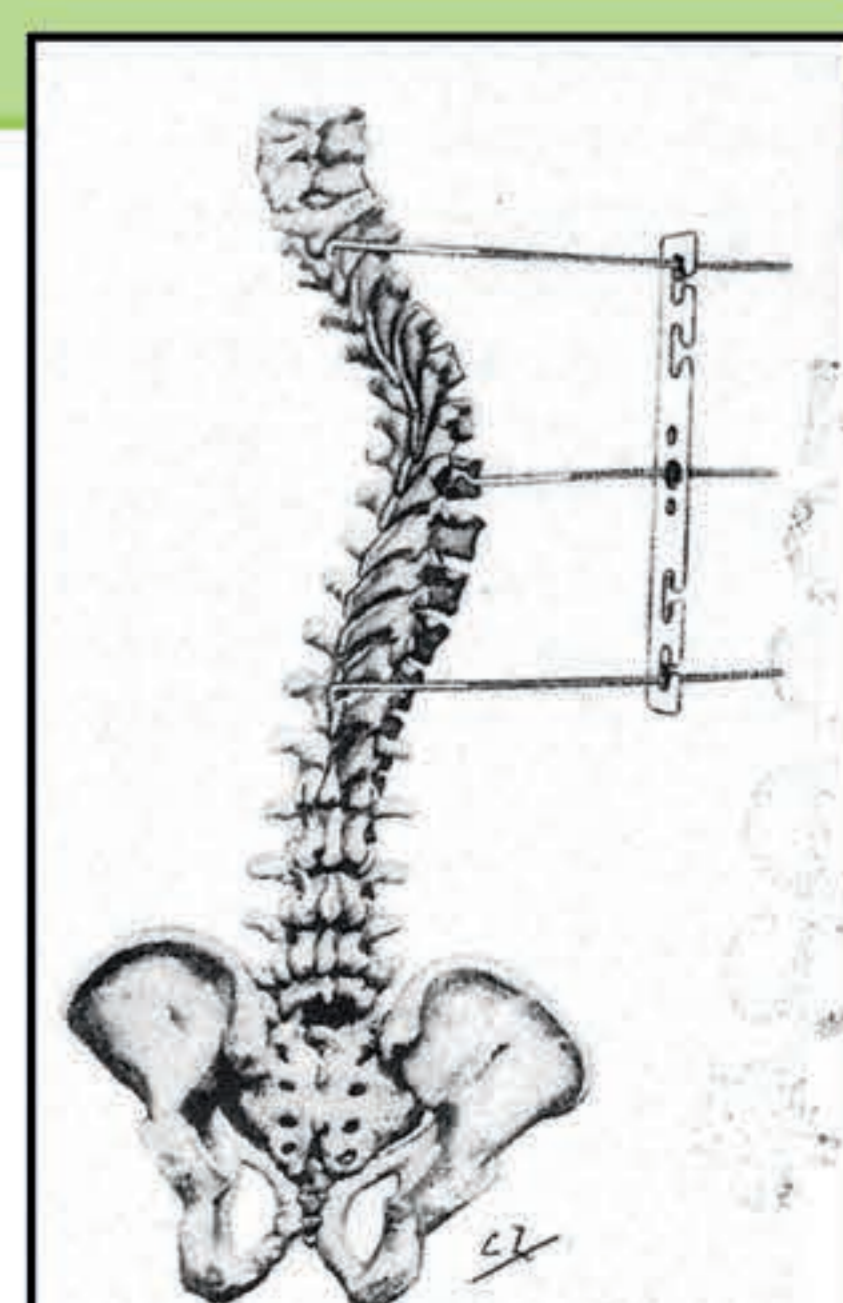
1st President of the Spanish Spine Society (GEER)



Alvaro López and Carlos Zuzuarregi

Early description of spine stabilization using a plate.

Lopez A; Zuzuarregi C. "New surgical technique in the treatment of scoliosis." *Rev Ortop Trauma*, 1964, 8: 363-375



Major Spanish Contributions to Spine and Spine Deformity Surgery



1970-1990: *Institutions and Units*

Most of the large hospitals in Spain were founded in the 1960s. The first units focusing on the treatment of scoliosis and other spinal deformities were created in the 1970s within the Orthopedic Surgery and Traumatology departments.

Many of these units were created in public hospitals in the national health system (Valencia - Hospital La Fe; Madrid - Hospital La Paz; Barcelona - Hospital Vall Hebron; Sevilla - Hospital Virgen del Rocío). Today, they are still active and assume a very significant portion of patients with spinal deformities.

The Clinica Universitaria de Navarra in Pamplona, the Fundación Jiménez Díaz in Madrid, and the Hospital de San Juan de Dios in Barcelona also played a relevant role in the beginnings of scoliosis surgery in Spain and continue to develop research and clinical activity at present.

1970s: The first spine surgery units are created in Spain



Hospital La Paz, Madrid

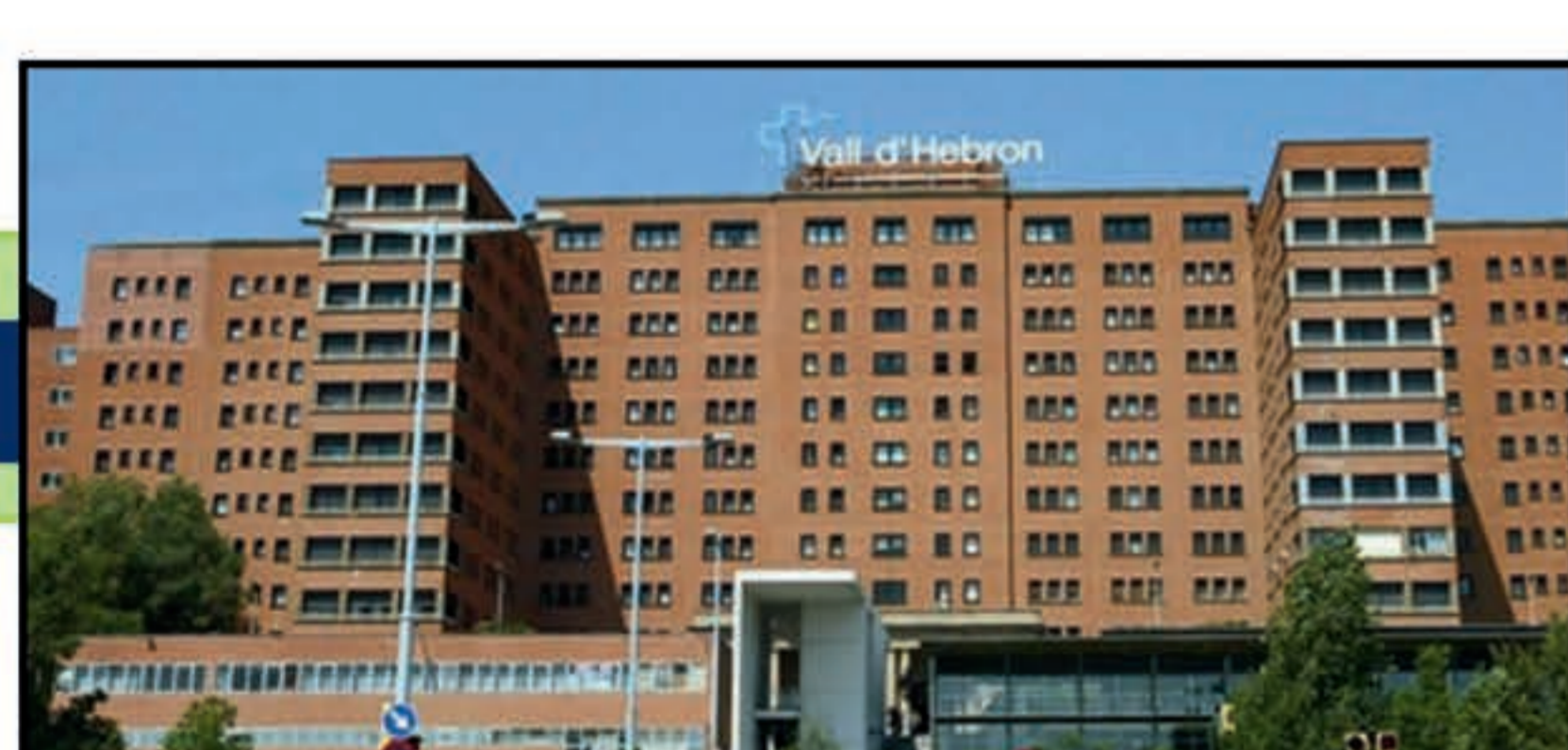


Luis S. Girón
GEER Founder

Jose L. Bas
GEER Founder



Hospital La Fe, Valencia



Hospital Vall de Hebrón, Barcelona



J. J. Madrigal
GEER Founder

Fernando F. Mancilla
GEER Founder



Hospital Virgen del Rocío, Sevilla

1983: Foundation of the Spanish Spine Society

Also known as:
GEER (Grupo de Estudio de Enfermedades del Raquis)
or
Sociedad Española de Columna Vertebral

The 1983-1985 Executive Committee:

President:
Francisco Gomar

Vice-President:
José Andrés Fernández
de Valderrama

Secretary:
Fernando Álvarez-Sala



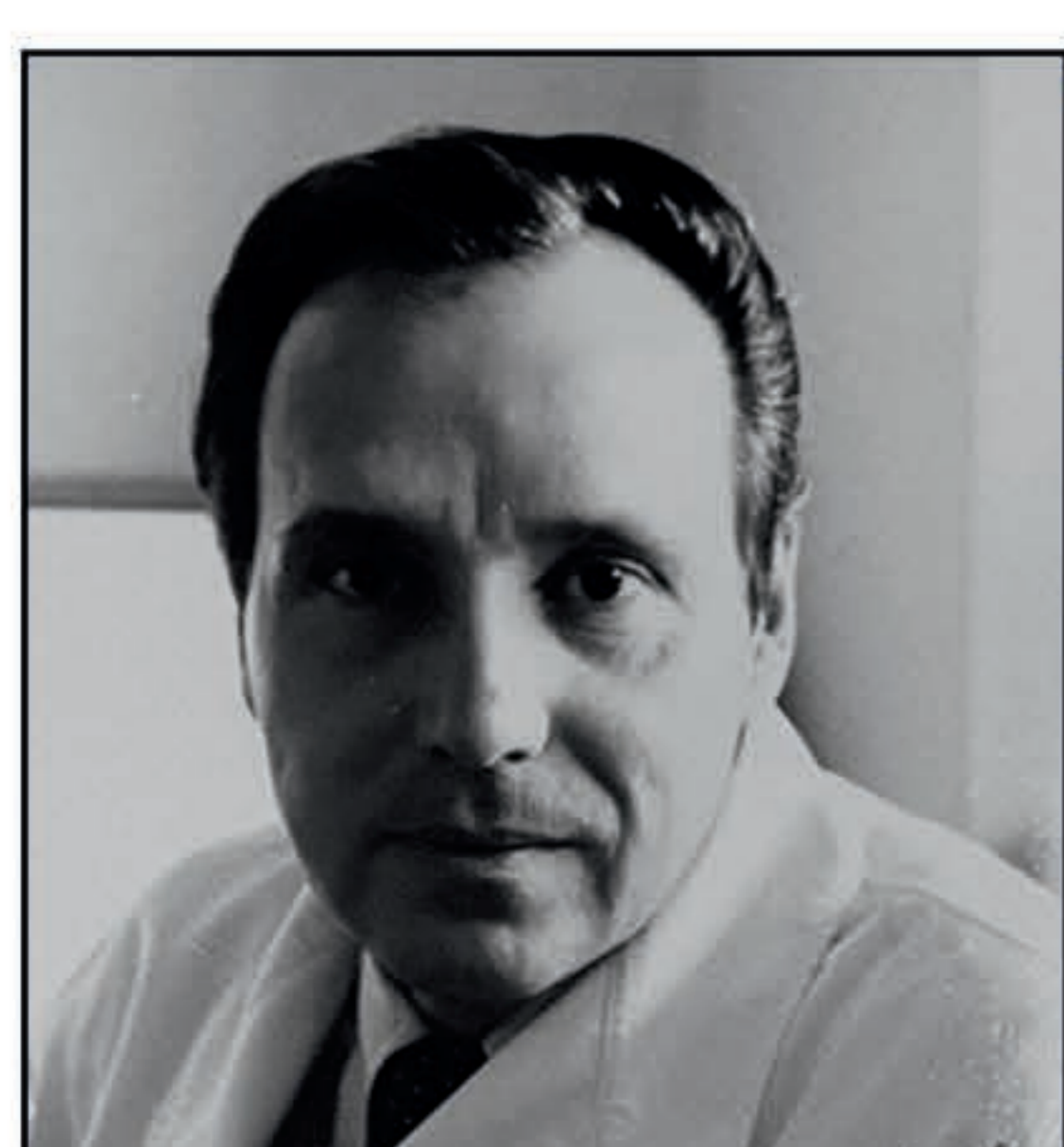
Past Presidents of GEER

**Major Spanish Contributions to
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SRS
Scoliosis Research Society

1970-1990: Institutions and Units



Miguel Ferrer-Torrelles

Professional Activity:

Hospital de la Concepción, Fundación Jiménez Díaz, Madrid

Paper:

Ceballos T, Ferrer-Torrelles M, Castillo F, Fernandez-Paredes E. Prognosis in infantile idiopathic scoliosis. *J Bone Joint Surg Am.* 1980 Sep; 62(6):863-75. PMID: 7430174.

This paper describes the natural history of infantile idiopathic scoliosis.

Rafael Esteve de Miguel

Training:

Nuffield Orthopaedic Centre, Oxford

Professional Activity:

1953- Chief of Department of Orthopedic Surgery, Hospital San Juan de Dios, Barcelona

Founder of GEER



José Andrés Fernández de Valderrama



Training:

Nuffield Orthopaedic Centre, Oxford

Professional Activity:

1968- Chief of Department of Orthopedic Surgery, Hospital de la Cruz Roja, Madrid

1974- First Spanish member of the SRS

Founder of GEER

José Cañadell

Training:

A. Santos Palazzi

Professional Activity:

1953-1968- Hospital Sagrado Corazón y Hospital de la Cruz Roja, Barcelona

1968- Clínica Universitaria de Navarra

Founder of GEER and EPOS President



Professor Cañadell directed the first orthopedic department developing a research program in orthopedics in Spain. One of his main areas of interest was basic research related to experimental scoliosis.

He was also one of the first Spanish researchers publishing scoliosis papers in peer-reviewed indexed journals.

Important Scoliosis Publications of José Cañadell:

Treserra J. "Experimental scoliosis". *Rev Ortop Trauma*, 1969, 31:739-800.

Cañadell J, Beguiristain JL, Glez Iturri J, Reparaz B, Gili JR. "Experimental scoliosis". *Rev Med Univ Navarra.* 1974 Sep-Dec; 18(3-4):99-111. Spanish. PMID: 4471079.

Beguiristaín JL. "Experimental scoliosis in bipedal rats" *Rev. Ortop. Trauma*, 1974. 18: 367-380.

Cañadell J, Beguiristain JL, Gonzalez Iturri J, Reparaz B, Gili JR. "Some aspects of experimental scoliosis". *Arch Orthop Trauma Surg* (1978). 1978 Dec12; 93(1):75-85. doi: 10.1007/BF00386554. PMID: 727933.

Beguiristain JL, De Salis J, Oriafó A, Cañadell J. "Experimental scoliosis by epiphysiodesis in pigs". *Int Orthop.* 1980; 3(4):317-21. doi: 10.1007/BF00266028. PMID: 7399773.

De Salis J, Beguiristain JL, Cañadell J. "The production of experimental scoliosis by selective arterial ablation". *Int Orthop.* 1980; 3(4):311-5. doi:10.1007/BF00266027. PMID: 7399772.

Gonzalez Iturri JJ, Beguiristain JL, Coello J, Cañadell J. "Reduction of idiopathic scoliosis by self-elongation" *Rev Orthop Trauma*, 1980, 24IB: 117-120.

Barrios C, Tuñón MT, De Salis JA, Beguiristain JL, Cañadell J. "Scoliosis induced by medullary damage: an experimental study in rabbits". *Spine.* 1987 Jun; 12(5):433-9. doi: 10.1097/00007632-198706000-00003. PMID: 3306965.

Barrios C, Tuñón MT, Engström W, Cañadell J. "Paraspinal muscle pathology in experimental scoliosis". *Arch Orthop Trauma Surg.* 1989; 108(6):342-5. doi: 10.1007/BF00932442. PMID: 2619518.

1990-Present: Making Connections

GEER-SRS Collaborations

1991



SRS 25th Annual Meeting
Minneapolis, Minnesota, USA



2013

GEER-SILACO-SRS Course
Valencia, Spain



2019

GEER-SILACO-SRS Course
Barcelona, Spain



15 CONGRESO IBEROLATINOAMERICANO
DE COLUMNA (SILACO)
33 CONGRESO NACIONAL DE LA SOCIEDAD
ESPAÑOLA DE COLUMNA VERTEBRAL (GEER)

SRS Travelling Fellowships



2011

2017



SRS Members from Spain

Joan Bagó, MD, PhD

Paloma Bas Hermida, MD

Teresa Bas, MD, PhD

Francesco Caiazzo, MD

David M. Farrington, MD

Enrique Izquierdo, MD

Domingo Lombao, MD

Juan Antonio Martin-Benlloch, MD

Hani H. Mhaidli, MD, PhD

Fernando Moreno Mateo, MD

Susana Nuñez Pereira, MD, PhD

Alejandro Peiró-García, MD

Ferran Pellisé, MD, PhD

Gabriel Pizá Vallespir, MD, PhD

Javier Pizones, MD, PhD

Nicolas Plais, MD

Cristina Sacramento Dominguez, MD, PhD

Francisco Javier Sanchez Pérez-Grueso, Sr., MD

Norberto Ventura, MD, PhD

Carlos Villanueva, MD, PhD

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