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Associate Professor, Department of Orthopedic Surgery
The University of Texas Southwestern Medical Center, Dallas, Texas

Associate Professor, Department of Biomedical Sciences
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Education

1982 State Medical Institute/Khabarovsk/Russia
Field of Study: Medicine/General Surgery
Degree: Medical Doctor

1984 Scientific Center "Restorative Traumatology & Orthopedics"/Kurgan/Russia
Field of Study: Orthopedic Surgery
Degree: Orthopedic Surgeon

Research Interest

Limb lengthening, deformity correction, bone transport
Computer-assisted preoperative planning and postoperative monitoring
Distraction osteogenesis and histogenesis
External skeletal fixation

Selected Publications

Ilizarov, G. A., and Samchukov, M. L. (1998). Ilizarov Reconstructive Surgery in the Treatment of Hip Osteoarthritis. *Orthoped Travmatol Protez*, 6:10-13.

Samchukov, M. L., and Birch, J. G. (1992). Pelvic Support Femoral Reconstruction Using the Method of Ilizarov: A Case Report. *Bull Hosp Joint Dis Orthop Inst*, 52(1):7-11.

Makarov, M. R., Delgado, M. R., Samchukov, M. L., Welch, R. D., and Birch, J. G. (1994). Somatosensory Evoked Potential Evaluation of Acute Nerve Injury Associated With External Fixation Procedures. *Clin Orthop*, 308:254-263.

Samchukov, M. L., Ezaki, M., Tucker, W. F., Ross, J. D. (1995). Restoration of Apposition Function in Residual Hand by the Ilizarov Method: A Case Report. *Bull Hosp Joint Dis Orthop Inst*, 53(4):13-16.

Lin, H., Birch, J. G., Samchukov, M. L., and Ashman, R.B. (1995). Computer Assisted Surgery Planning for Lower Extremity Deformity Correction by the Ilizarov Method. *J Image Guid Surg*, 1(2):103-108.

- Makarov, M. R., Delgado, M. R., Birch, J. G., and Samchukov, M. L. (1996). Intraoperative SSEP Monitoring during External Fixation Procedures in the Lower Extremities. *J Pediatr Orthop*, 16:155-160.
- Makarov, M. R., Birch, J. G., Delgado, M. R., Welch, R. D., Samchukov, M. L. (1996). Effects of External Fixation and Limb Lengthening on Peripheral Nerve Function. *Clin Orthop*, 329:310-316.
- Makarov, M. R., Delgado, M. R., Birch, J. G., and Samchukov, M. L. (1997). Monitoring of Peripheral Nerve Function During External Fixation of Upper Extremities. *J Pediatr Orthop*, 17:663-667.
- Welch, R. D., Birch, J. G., Makarov, M. R., and Samchukov, M. L. (1998). Dynamic and Static Histomorphology of Distraction Osteogenesis in a Caprine Tibial Lengthening Model. *J Bone Min Res*, 13(1):1-9.
- Makarov, M. R., Delgado, M. R., Birch, J. G., and Samchukov, M. L. (1998). Peripheral Nerve Monitoring During Surgery for Upper Extremity Lengthening. *Tech Hand Upper Extremity Surg*, 2(1):56-63.
- Bronson, D. G., Samchukov, M. L., Birch, J. G., Browne, R. H., and Ashman, R. B. (1998). Stability of External Circular Fixation: A Multi-Variable Biomechanical Analysis. *Clin Biomech*, 13:441-448.
- Birch, J. G., and Samchukov, M. L. (2000). Korrektur von meta-epiphysären Fehlstellungen der Tibia im Wachstumsalter nach Ilizarov. *Operat Orthop Traumatol*, 12:220-233.
- Bronson, D. G., Samchukov, M. L., and Birch, J. G. (2002). Stabilization of Short Juxta-Articular Bone Segment with a Circular External Fixator. *J Ped Orthop*, Part B 11:143-149.
- Shtarker, H., Volpin, G., Stolero, J., Kaushansky, A., and Samchukov, M. L. (2002). Correction of Combined Angular and Rotational Deformities by the Ilizarov Method. *Clin Orthop*, 402:184-195.
- Lindsey, C. A., Makarov, M. R., Shoemaker, S., Birch, J. G., Buschang, P. H., Cherkashin, A. M., Welch, R. D., and Samchukov, M. L. (2002). Effect of the Amount of Gradual Limb Lengthening on Skeletal Muscle Adaptation. *Clin Orthop*, 402:278-287.
- Makarov, M. R., Samchukov, M. L., Birch, J. G., Johnston, C. E., Delgado, M. R., Rampy, P. L., Van Allen, E. M. (2003). Acute Deformity Correction of Lower Extremities Under SSEP-Monitoring Control. *J Pediatr Orthop*, 23:470-477.
- Rocchio, T. M., Younes, M. B., Bronson, D. G., Birch, J. G., and Samchukov, M. L. (2004). Mechanical Effect of Posterior Wire or Half-Pin Configuration on Stabilization Utilizing a

Model of Circular External Fixation of the Foot. *Foot & Ankle International*, 25(3):136-143.

Birch, J. G., and Samchukov, M. L. (2004). The Ilizarov Method for the Correction of Lower Limb Deformities in Children and Adolescents. *J Am Acad Orthop Surg*, 12:144-154.

Memberships

- The Limb Lengthening & Reconstruction Society – ASAMI North America
- Pediatric Orthopedic Society of North America (POSNA)
- International Society of Orthopedic Research (SIROT)