REFERENCES

1. Baylink DJ, Finkelman RD, and Mohan S: Growth factors to stimulate bone formation. J. Miner. Res. 8S: 565-572, 1993
2. Mohan S, Baylink DJ: Bone growth factors. Clin. Orthop. 263: 30-48,1991
3. Safdar N. Khan, MD, Mathias PG. Bostrom, MD. And Joseph M. Lane MD – Bone growth factors, OCNA, Vol 31:3.July2000, 375-76,
4. *Paul Maquet, Iatrophysics to Biomechanics JBJS Vol: 74 B, 3, 335-9.*
5. Descartes R. *Trait'e de l'homme et de la formation du foetus*. Amsterdam: Elsevier, 1675.
6. Borellus JA. *De motu animalium. Pars prima*. Roma: Angeli Bernabo, 1680
7. Weber W, Weber E. *Mechanik der menschlichen Gehwerkzeuge*. Bottingen: Dietrich, 1836. Translation*: Mechanics of the human walking apparatus*. Berlin: Springer Verlag, 1992.
8. Ward FO. *Outlines of human osteology*. 1 st ed. London, 1838.
9. Meyer H. von. *Die Architectur der Spongiosa. Reichert und Dubois- Reymond's Arch.* ***1867:627***
10. Wolff J. *Das-Gesetz der transformation der Knochen*. Berlin: A. Hirschwald, 1892. Translation: *The Law of Remodelling*. Berlin: Springer Verlag, 1986.
11. Zatsepin TS (1928) Osteotomiya (Osteotomy), Narkomzdrav, Moscow
12. Roux W. *Gesammelte Abhandlungen uber Entwickelungsmechanik der Organismen.* Leipzig: Engelmann, 1895.
13. Pauwels F *Gesammelte Abhandlungen zur funktionellen Anatomie*. Berlin: Springer Verlag 1965. Translation with additions: *Biomechanics of the locomotor apparatus*. Berlin: Springer Verlag, 1980.
14. Ilizarov GA., *The Tension - Stress Effect on the Genesis and Growth of Tissues*, Transosseous Osteosynthesis. Springer Verlag, Berlin.1992.
15. Akin, J. E. *Finite Elements for Analysis and Design.* San Diego: Academic Press, 1994.
16. V.I. Shevtsov, V.D. Makushin, L.M. Kuftyrev, General Biomechanical Principles of Osteosynthesis, Defects of Lower limb bones. BI – Churchill Livingstone Pvt. Ltd., 2000, 442.

17. Makushin V.D., Kuftyrev L.M. (1983) Treatment of bone defects after Ilizarov (in Russian). In: Proceedings of All Union Symposium with participation of foreign doctors. Kurgan, pp 150-153.
18. Pauwels F: Biomechanics of the locomotor apparatus. Berlin, Springer Verlag 1980.
19. Maquet P, Biomecanique de la gonarthrose. Acta Orthop. Belg. 1972, 6; 38 suppl.1: 33-54
20. Pauwels F Biomechanics of the normal and diseased hip. Berlin: Springer Verlag, 1976
21. Vladimir Golyakhovsky, Victor Frankel, Operative Manual of Ilizarov Techniques, 1993, Mosby Year book, First Indian Edition, 1994, p.65-7
22. Lanyon L.E. and Rubin. C.T. Static versus dynamic loads as an influence on bone remodelling. J. Biomechanics.12: 897-907, 1984.
23. Dror Paley, Biomechanics of the Ilizarov external fixator- Operative Manual of Ilizarov, ASAMI GROUP, A. Bianchi Maiocchi, J. Aronson, Williams and Wilkins, p.37.
24. Ilizarov G.A. A method of uniting bones in fractures and an apparatus to implement this method. USSR Authorship certificate 98471, filed 1952
25. Ilizarov G.A, Ledioev.VI. and Shitin V.P. - The course of compact bone reparative regeneration in distraction osteogenesis under different conditions of bone fragment fixation and experimental study. Exp. Khir. Anest, 14.3,1969
26. Ilizarov.G.A: Basic principles of Transosseous compression and distraction osteosynthesis. Ortop. Travmatol. Protez.32 (11): 7, 1971.
27. Ilizarov, G.A., Schreiner, A.A., Imerlishvili, I.A., Bakhlykov, Y.N., Onirkova, A. M., and Marterl, I.I.: On the problem of improving osteogenesis conditions in limb lengthening. *In* Abstracts of First International Symposium on Experimental and Clinical Aspects of Transosseous Osteosynthesis, Kurgan, USSR, Sept, 20-22, 1983.
28. Allen F. Tencer, Kenneth D. Johnson, Basic concepts in Biomechanics of Fracture Fixation. Biomechanics in Orthopedic Trauma. Martin – Dunitz 1994 2, 5, 6, 295.
29. Nemkov VA, Karavashkin BK, Liberman SB (1977) Transosseous compression-distraction apparatus: mechanics and strength of the material, (in Russian) Moscow, pp 47-50.

30. Fredrich Kummer, Biomechanics of the Ilizarov external fixator. CORR. 1992. Vol .280, 11- 14
31. Calhoun JH, Li F, Ledbetter BR, Gill CA, Biomechanics of Ilizarov for fracture fixation, Trans 37th Orthopaedic research society meeting (1991) 16:439
32. James Aronson, John Harp, Mechanical considerations in using tensioned wires in a transosseous external fixation system, CORR 280, July 1992 24- 29,
33. Kristiansen T, Fleming B, Reinecke S, Pope MS, Comparative study of fracture gap motion in external fixation, Clin Biomech (1987) 2:191-5
34. Podolsky. A and Chao. E.Y.S. Biomechanical performance of Ilizarov external fixators, Trans. Orthop.Res. 15:416.1990.
35. Fleming. B., Paley, D, Kristiansen T., and Pope M: A Biomechanical analysis of the Ilizarov external fixator, Clin.Orthop 241:95. 1989.
36. Podolsky and Chao, Mechanical performance of Ilizarov circular external fixators in comparison with other external fixators. Clin. Orthop.293, 1993,61-70
37. Bouletreau PJ, Warren SM, Longaker MT, The Molecular biology of distraction osteogenesis, European Association for Cranio- Maillofacial Surg. 2002, Elsiver Science Ltd., PMID: 12064876 (Pub med- in process)
38. Radomish TE, Moore DC, Barrach HJ, Keeping HS, Ehrlich MG, PMID: 11781004 (Pub med – indexed for MEDLINE).
39. Cillo JE Jr., Gassner R, Koepsel RR, Buckley MJ, Oral Surg. Oral Med, Oral Path, Oral Radiol. Endod 2000, Aug, 90(2): 147-54,
40. James Aranson, The Biology of Distraction osteosynthesis, Operative Principle of Ilizarov. ASAMI Group. Williams and Wilkins. 51.
41. Richards. M. Goulet JA, Schaffler MB, Goldstein SA, J. Bone. Miner. Res, 1999.Nov: 14 (11): 1978-86.
42. Yasui. N, Sabo. M, Ochi. T, Kimura. T, Kawakata. H, Kitamura. Y, Nomura. S, Three modes of Ossification during distraction Osteogenesis in rats. JBJS-Sep, 1997, Vol.99B-5.
43. Gurlt (1862) Handbuch der Lehre von Knochenbruchen, Berlin.
44. Syngaevsky SJ (1911) The formation of bone callus and its structure in the healing of fractures. Experimental investigation (in Russian) Dissertation. University of Odessa.

45. G. A. Ilizarov, Significance of rigid fixation and other mechanical features. Transosseous Osteosynthesis, Springer- Verlag 1992,9,
46. S.I. Shved, A.G. Karasiov, Results of treatment of patients with multiple fractures of leg bones by the Ilizarov method. National Ilizarov course 1997.
47. S. I. Shved, G Demid, B. Dagva, and G.V. Diachkova, Transosseous osteosynthesis by Ilizarov in tibial fracture treatment according to data of trauma hospital in Ulan-Ude city. National Ilizarov course, 1997.
48. Kallayev, Transfocal osteosynthesis of juxta- and intra articular fractures of long bones, National Ilizarov course, 1997.
49. Okulov, G.V., The Ilizarov method in treatment of intra articular fractures of long tubular bones, National Ilizarov course 1997.
50. V.P. Okhotsky, I.F. Bialick, Use of Ilizarov apparatus in patients with open fractures. National Ilizarov Course, 1997.
51. Does adult fracture repair recapitulate embryonic skeletal formation? Mech. Dev. 1999. Sep: 87 (1-2) 57-66
52. Solheim E: Growth factors in bone. Int. Orthop 22:410-416,1998
53. Bolander ME: Regulation of fracture repair by growth factors. Proc Soc Exp Biol Med 200: 165-170, 1992.
54. Bostorm M, Lane J, Berberian W, et al: Immunolocalization of expression of bone morphogenetic proteins 2 and 4 in fracture healing. J Orthop. Res. 13: 357 –367, 1995.
55. Bourque WT, Gross M, and Hall BK: Expression of four growth factors during fracture repair. Int J Dev Biol 37: 573 –579, 1993.
56. Joyce ME, Jinguishi S, and Bolander ME: Transforming growth factor – beta in the regulation of fracture repair. Orthop Clin North Am 21: 199 –209,1990
57. Nakase T, Nomura S, Yoshikawa, et al: Transient and local expression of bone morphogenetic protein 4 messenger RNA during fracture healing. J Bone Miner Res 9:651-659, 1994.
58. Canalis E, McCarthy T, Centrella M: Growth factors and the regulation of bone remodelling. J Clin Invest 81:277-281, 1988.
59. Celeste AJ, Iannazzi JA, Taylor RC, et al: Identification of transforming growth factor beta family members present in bone inductive protein purified from bovine bone. Proc Natl Acad Sci USA 87:9843-9847, 1990.

60. Joyce ME, Jingushi S, Scully SP: Role of growth factors in fracture healing. Prog Clin Biol Res 365:391-461, 1991.
61. Simmons DJ: Fracture healing perspectives. Clin Orthop 200:100-113, 1985.
62. Wozney JM, Rosen V, Celeste AJ, et al: Novel regulators of bone formation: Molecular clones and activities. Science 242:1528-1534, 1988.
63. Solheim E: Growth factors in bone. Int. Orthop 22: 410-416, 1998.
64. David Marsh, K. Union, Delayed Union and Non Union. Clin. Orthop. No 355 S October 1998, 22-30.
65. Charles A. Vacanti and Joseph P. Vacanti, The Science of Tissue Engineering, Orthop Cli North Am. 31-3.July 2000, 351-355.
66. James E. Fleming, Charles N. Cornell, and George F Muschler. Bone cells and matrices in Orthopaedic Tissue Engineering. Orthop Cli North Am. 31-3.July 2000, 357-374.
67. G. A. Ilizarov, Blood supply and its dependence upon fragment fixation and limb function. Transosseous Osteosynthesis, Springer – Verlag 1992, 11.
68. Kroese IJ, 1977. The contribution of muscle and skin circulation to reactive hyperemia in the human lower limb. Vasa 6 (1): 9-11.
69. Aronson J, Temporal and spatial increases in blood flow during distraction osteogenesis, Clin. Orthop. 1994 Apr; (301) 24-31.
70. Fukada E, and Yasuda I J Phy Soc of Japan 12 (10) 1158-62.
71. Erickson. C. Streaming potentials and other water dependant effects in mineralized tissues. Ann.N.Y. Acad. Sci. 238:321, 1974.
72. Allan R. Turner - Smith, Preface, Micromovement in Orthopedics. Clarendon Press- Oxford 1993.
73. Yamagishi M, Yoshimura Y (1955) The Biomechanics of fracture healing. J Bone Joint Surg [AM} 37: 1035-1062.
74. L. Cleas, J Laule, K. Wenger, G. Sugu, U Liener, L. Kinzl, The influence of stiffness of the fixator on the mechanism of callus after segmental transport. JBJS. Vol. 82-B: Jan 2000 142-148.
75. Augat Peter; Merk Josef, Wolf, Steffen, Claes Lutz Mechanical Stimulation by External Application of Cyclic Tensile Strains Does Not Effectively Enhance Bone Healing© 2001 Lippincott Williams & Wilkins, Inc.JOT: Volume 15(1) January 2001 pp 54-60.

76. Danis Carter, Gary S Beaupre, Nicholas J. Giori, Jill A Helms DDS. Mechanobiology of Skeletal Regenerate. Cli. Orthop No 355S 1998.S41-55.
77. Lutz E. Cleas, Daniela Kaspar, Walter Seidel, Kristen J Margevicius, Peter Augat, Mechanical Factors on the fracture healing Cli. Orthop. 1998 No 355 S S132- 147.
78. Development & Evaluation of resorpable Biphasic Calcium phosphate ceramics as bone replacement materials Manjubala TP Sastry – PhD Thesis.
79. Gasser.B, Boma.B. Wyder.D & Sehneider.E, Stiffness characteristics of the circular Ilizarov device as opposed to conventional external fixator .J.Biomech. Engineering 112:15.1990.