

REFERENCES

1- Acar, J.F. (1985):

Therapy for lower respiratory tract infections with imipenem /cilastatin: A review of world wide experience. Rev. Inf. Dis., 7 (Suppl 3), 513-517.

2- Alan Stevens and James, S.L. (1979):

Human Histology, 2nd edition, 275-300. Mosby company St. Louis, New York Philadelphia, London.

3- Anderson, W.A.; Personne, P. and Andre, J. (1968):

Chemical compartmentalization in Helix spermatozoa. J. Micr., 7, 367-372.

4- Anderson, W.A.D. and Scott, T.M. (1976):

Synopsis pathology, ninth edition, PP, 324-339. The C.V. Mosby Company, St. Louis, London.

5- Arakawa, M. and Tokuanga, J. (1974):

Further scanning electron microscope studies of the human glomerulus. Lab. Invest., 37, 436.

6- Arstilla, A.U. (1968):

Studies on cellular phagocytosis. The function of autophagic vacuoles in the liver after glycogen administration. Am. J. Path., 53, 684-690.

7- Auckenthaler, R.; Wilson, W.R.; Wright, A.J.; Washington, J.A.I.I.;

Durack, D.T. and Geraci, J.E. (1982):

Lack of in vivo and in vitro bactericidal activity of N-formimidoyl thienamycin against enterococci. Antimicrob. Agents Chemother., 22, 448-552.

8- Ballantyne, B.; Wood, W.G. and Meffan, P.M. (1968):

Sequential analysis of urinary enzymes in early diagnosis of parenchymal damage after hemotransplantation. Brit. Med. J. 3, 667-669.

- 9- Bancroft, J.D. (1975):
Histochemical techniques, 2nd ed. PP, 230-251. Butter
Worths, London and Boston.
- 10- Bancroft, J.D. and Steven, A. (1982):
Theory and practice of histological techniques, 2nd ed. PP,
110-111. Churchill Livingstone. Edinburgh, London,
Melbourne and New York.
- 11- Barka, T. and Anderson, P.J. (1963):
Histochemistry: Theory, practice and Bibliography, first
edition, PP, 220-230. Harper and Row Publishers, New
York, Evanston and London.
- 12- Batasakis, J.G. and Briere, R.O. (1976):
Interpretive enzymology, Spring field, IL, Charles C.
Thomas. PP., 137-149.
- 13- Becker, F.F. (1974):
Liver normal and abnormal function.
Am. J. Anat.; 15; 36-45.
- 14- Bellido, F. and Pechere, J. (1989):
Laboratory survey of fluoroquinolone activity.
Rev. Infect. Dis., 11 (Suppl. 5), S917-S929.
- 15- Bennett, W.M.; Porter, G.A.; Bagby, S.P. and McDonald, W.J.
(1978):
Drugs and renal diseases. Ed. Daniel, L.A. PP., 67.
Churchill, London.
- 16- Berkeley, A.S.; Freedman, K.; Hirsch, J. and Ledger, W.J. (1985):
Imipenem/cilastatin in treatment of obstetric and
gynecologic infections.
Am. J. Med. 78 (Suppl. 6A), 79-84.
- 17- Berry, A. and Archer, G. (1984):
Treatment of experimental methicillin resistant
staphylococcus epidermidis (MRSE) endocarditis with
imipenem (abstract). Program Abstr. Inter Sci., Conf.
Antimicrob. Agents. Chemother. 24, 342.

- 18- *Birnbaum, J.; Kahan, F.M.; Kropp, H. and MacDonald, S. (1985):*
Carbapenems, a new class of B-lactam antibiotics.
Discovery and development of imipenem, cilastatin.
Am. J. Med. 78 (Suppl 6A), 3-21.
- 19- *Bodey, G.P.; Elting, L.; Jones, P.; Alvarez, M.E.; Rolslen, K. and Fainstein, V. (1987):*
Imipenem/cilastatin therapy of infection in cancer patients.
Cancer, 60, 255-262.
- 20- *Bohman, S.O. (1974):*
The ultrastructure of the renal medulla as observed after
improved fixation methods.
J. Ultrastructures. Res. 47, 329.
- 21- *Brenner, B.M.; Myer, T.W. and Hostetter, T.H. (1982):*
Dietary protein intake and progressive nature of kidney
diseases.
V. Eng. J. Med., 307-652.
- 22- *Bulger, R.E.; Tischler, C.C.; Myers, C.H. and Trump, B.F. (1967):*
Human renal ultrastructure, the thin renal limbs of Henle's
loop and the interstitium in healthy individuals.
Lab. Invest. 16: 124.
- 23- *Bulger, R.E. and Nagle, R.B. (1973):*
Ultrastructure of the interstitium in the rabbit kidney.
Am. J. Anat. 181, 136-183.
- 24- *Bulger, R.E. and Dobyan, D. (1982):*
Recent advances in renal morphology.
Annu. Rev. Physiol. 44, 147.
- 25- *Burkel, W.E. and Low, F.N. (1966):*
The fine structure of rat liver sinusoids, space of Disse and
associated tissue spaces.
Am. J. Anat., 10, 118-169.
- 26- *Burt, R. and Putliam, R. (1962):*
Liver phosphorylase activity in pregnancy.
Am. J. Obstet. Gynecol.; 24, 764-770.

- 27- Calandra, G.B.; Brown, K.R.; Grad, L.C.; Ahonkhai, V.I.; Wang, C. and Aziz, M.A. (1985):
Review of adverse experiences and tolerability in the first 2,516 patients treated with imipenem/cilastatin.
Am. J. Med., 78 suppl., (6A), 65-70.
- 28- Carlier, M.B.; Paulus, G. and Maldagus, P. (1982):
Early toxic events in kidney of rat and man following administration of gentamicin at low doses.
Arch. Toxicol. 49, (5), 287-290.
- 29- Chiquoine, A.D. (1953):
Distribution of succinic dehydrogenase in liver and kidney of the mouse.
J. Histochem. Cytochem. I.; 42-50.
- 30- Claude, A. (1970):
Growth and differentiation of cytoplasmic granules synthesis in hepatic cells elaboration of element of Golgi complex.
J. Cell Biol., 47, 74-197.
- 31- Cohen, L.; Lapkin, R. and Kaloyanide, G.J. (1975):
Effect of gentamicin and renal function in the rat.
J. Pharmacol. Exp. Ther. 163, 264-273.
- 32- Colowick, K.S.P. and Kaplan, N.D. (1955):
Methods in enzymology, second edition, Vol. IX, PP., 137. Academic press, New York and London.
- 33- Cormack, D.H. (1987):
Ham's Histology, Ninth edition, PP, 520-535 and 567-587, J.B. Lippincott Company, Philadelphia, London and New York.
- 34- Cox, G.E. and Corrado, M.L. (1985):
Safety and efficacy of imipenem/cilastatin in treatment of obstetric and gynecologic infections.
Am. J. Med. 78, (suppl 6A), 79-84.

- 35- *Craig, J.R. (1990):*
Liver. In: Anderson's pathology. By Kissone, J.M. (ed),
PP., 1199-1230. Mosby St., Lowis, Baltimore,
Philadelphia, Toronto.
- 36- *Culling, C.F.A.; Allison, R.T. and Barr, W.T. (1985):*
Enzymes with fatal complications. Intensive care.
Med. 16, 212-214.
- 37- *Cuppage, F.E.; Seller, K.; Sullivan, L.P.; Reitzes, E.J. and Melenk.
Ovyck, A.O. (1977):*
Gentamicin nephrotoxicity, physiological, biochemical
and morphological effects of prolonged administration to
rats.
J. Cell Pall. 24, 121-138.
- 38- *Cynamon, M.H. and Palmer, G.s. (1982):*
In vitro susceptibility of Mycobacterium fortuitum to N-
formimidoyl thienamycin and several cephalmycins.
Anti. Microb. Agents Chemother. 22, 1079-1081.
- 39- *Danielli, J.F. (1953):*
Cytochemistry a critical approach First edition, PP., 78.
Churchill Livingstone, Wiley and New York.
- 40- *Daoust, R. (1979):*
Histochemical comparison of focal RNase and ATPase
activities in preneoplastic rat livers.
J. Histochem, Cytochem. 27, (2) 653-665.
- 41- *Darmady, E.W. (1980):*
Renal pathology. 1st edition. PP., 25-33.
Butterworth, Co. Ltd., London, UK.
- 42- *Dean, H.W.; Nebett, F.B. and Hastings, A.B. (1946):*
Improved fixation for histological demonstration of
glycogen and comparison with chemical determination in
liver.
Proc. Exp. Biol., Med. 53: 401.

- 43- *DeDuve, C. and Baudhuin, P. (1966):*
 Peroxisomes (Microbodies and related particles).
 Physio., Rev. 46, 233-240.
- 44- *Dickinson, G.; Rodriguez, K.; Arcey, S.; Alea, A. and Greenman, R. (1985):*
 Efficacy of imipenem/cilastatin therapy of bacteremia.
 Am. J. Med. 78, (Suppl. 6A), 117-121.
- 45- *Dipalma, J.R. and DiGregorio, G.J. (1990):*
 Basic pharmacology in Medicine. 3rd ed. P., 600.
 McGraw-Hill Publishing Company, New York, St. Louis,
 London.
- 46- *Disbrey, B.D. and Rock, J.H. (1970):*
 Histological Laboratory methods. 2nd ed., 215-218.
 E.S. Livingstone, Edinburgh and London.
- 47- *Dixon, M. and Webb, E.C. (1964):*
 Enzymes, 2nd edition, PP., 101.
 Longman, London.
- 48- *Drury, R.A.B. and Wallington, E.A. (1980):*
 Carlton's histological techniques, fifth edition, PP., 139-
 295.
 Oxford University press, New York, Toronto.
- 49- *Drusano, G.L. (1986):*
 An overview of the pharmacology of imipenem/cilastatin.
 J. Antimicrob. Chemother. 18, (Suppl E), 79-92.
- 50- *Edress, Z.; Abd El-Wahed, H. and Khalil, H. (1980):*
 Effect of insulin treatment on histochemical changes in the
 kidney of diabetic rats.
 Egypt., J. Histol. 3 (1), 25-29.
- 51- *Eger, W. (1954):*
 Pathology of central and peripheral functional fields of
 liver parenchyma.
 Allg. Pathol. Anat. 5, 91-225.

- 52- *Ekman, G.A. and Holmgren, H. (1949):*
The effect of alimentary factors on liver glycogen rythm
and the distribution of glycogen in liver lobule.
Anat. Res. 104, 189-196.
- 53- *Eng, R.H.K.; Munsif, A.N.; Yangco, B.G.; Smith, S.M. and Chmel, H. (1989):*
Seizure propensity with imipenem.
Arch., Intern. Med. 149, 1881-1883.
- 54- *Eron, L.J. (1985):*
Imipenem/cilastatin in endocarditis.
Am. J. Med. 78, (Suppl. 6A), 95-99.
- 55- *Estrabrook, R.W.W. and Pullman, M.E. (1962):*
Methods in enzymology, first edition Vol. X, PP.,443-450.
Academic Press, New York and London.
- 56- *Fass, R.J.; Friemer, E.H. and McClaskey, R.V. (1985):*
Treatment of skin and soft tissue infections with
imipenem/cilastatin.
Am. J. Med. 78 (Suppl, 6A), 110-112.
- 57- *Fawcett, D.W. (1985):*
A text book of Histology, tenth edition, PP., 466-804.
W.B. Saunders company I Gako-Shain, Saunders
Philadelphia, London, Toronto.
- 58- *Fawcett, D.W. (1986):*
A text book of Histology, 11 edition PP., 757-780. W.B.
Saunders Company I Gako-Sahin/Saunders, Philadelphia,
London, Toronto.
- 59- *Fawcett, D.W. (1994):*
Bloom and Fawcett. A text book, 12 edition, 652-677 and
728-759. Saunders Company, Sahin/Saunders,
Philadelphia, London and Toronto.
- 60- *Freeman, W.H. and Bracegirdle, B. (1976):*
An Atlas of Histology, second edition, PP., 73. The
English Language Book Society and Heimeman Book.
London.

- 61- Gorrod, L.P. (1981):
Antibiotic and chemotherapy, fifth ed. Churchill.
Livingstone, London and New York.
- 62- Ghigger, G.M.; Candiano, G.; Delfino, G.; Bianchini, F. and
Quelrolo, G. (1984):
Glycosyl albumin and diabetic micro-albuminuria,
demonstration of an altered renal handling.
Kid. Int. 25, 565-570.
- 63- Gibbon, I.R. and Rowe, A.J. (1965):
Dynein: a protein with adenosin triphosphatase activity
from Cilia.
Science, 149, 424-431.
- 64- Gomori, G. (1939):
Microtechnical demonstration of phosphatase in tissue
sections.
Proc. Soc. Exp. Biol. Med., 42, 23. Cited by Disbrey and
Rack, 1970.
- 65- Gomori, G. (1950):
Pitfalls in histochemistry.
Ann. N.Y. Acad. Sci. 50, 968-998.
- 66- Goodlad, G.A.J. and Mills, G.T. (1957):
The acid phosphatase of rat liver.
Biochem. J. 66, 346-354.
- 67- Gorrod, J.w. and Jenner, P. (1975):
The metabolism of tobacco alkaloids.
In Essays in Toxicology, 6: 35-78, New York.
- 68- Gray, J.E.; Purmalis, A.; Purmalis, B. and Mathews, J. (1971):
Ultrastructural studies of the hepatic changes brought
about by clindamycin and erythromycin in animals.
J. Infect, Dis., 119, 364-365.
- 69- Greep, R.O. and Weiss, L. (1973):
Histology, Third edition, 603-618. McGraw-Hill book
company, a Black Stone Publication, London, New York,
Toronto.

- 70- *Guyton, A.C. (1981):*
Text book of Medical physiology, 6th ed. 838-848. W.B. Saunders company, Philadelphia.
- 71- *Haensly, W.E.; Granger, H.J. and Morris, A.C. (1982):*
Proximal tubule like epithelium in Bowman's capsule in spontaneously hypertensive rats.
Am. J. Path. 107-192.
- 72- *Hamilton, W.J.; Boyda, J.D. and Mossman, H.W. (1962):*
Human embryology, A text book, third edition, PP. 240-244. W. Heffer and Senslimited Cambridge.
- 73- *Han, S. and Holmsted, J.O. (1981):*
Human microscopic anatomy, first edition 456-459. McGraw-Hill Book Company, New York, Tokyo, Paris and London.
- 74- *Haptinstall, R.H. (1985):*
Pathology of the kidney, 3rd ed. Vol. II., 1091, Boston, Toronto. Little brown company.
- 75- *Hawthorne, G.C.; Macellan, J.R.; Mythen, M.; Alberti, K.G. and Turner, G.A. (1986):*
Studies on glomerular basement membrane in experimental diabetes using lactin Histochemistry in Wistar rats.
Diabetologia, 29, 495-499.
- 76- *Henry, S.A. and Bendush, C.B. (1985):*
Aztreonam: worldwide overview of the treatment of patients with gram-negative infections.
Amer. J. Med., 78 (Suppl. 2A), 57-64.
- 77- *Houghton, D.C.; Hartnett, M.; Boswell, M.C.; Ponter, G. and Bennett, W.M. (1976):*
A light and electron microscopic analysis of gentamicin nephrotoxicity in rats.
Am. J. Path. 82, 589-599.

- 78- Houghton, D.C.; Piamp, C.E.; Defehr, J.M.; Bennett, W.M.; Porter, G. and Gilbert, D. (1978):
Gentamicin and tobramycin nephrotoxicity.
Am. J. Path., 93, 137-146.
- 79- Jacoby, F. and Martin, B.F. (1951):
Histochemical distribution of alkaline phosphatase in the liver of rat.
J. Anat. 85, 591-596.
- 80- Jamison, R.L. and Muffly, R.H. (1985):
The urinary concentrating mechanism.
N. Engl. J. Med. 295, 1059-1065.
- 81- Jasmin, G. (1967):
Histochemie enzymatique de nephron chez, Le. rat.
Acta. Histochem. 26, 160-168.
- 82- Javier, G. and Gary, B.C. (1991):
Intramuscular imipenem/cilastatin in multiple-dose treatment regimens: Review of the world wide clinical experience.
Chemotherapy, 37 (suppl. 2): 44-52.
- 83- Job, M. and Dietler, H. (1990):
Seizure activity with imipenem therapy incidence and risk factors.
DICP, 24, 467-469.
- 84- Jones, R.N. (1985):
Review of the in vitro spectrum of activity of imipenem.
Am. J. Med. 78 (suppl. 6A), 22-32.
- 85- Jose, M.D.; Krishnakantha, P.H.D. and Francis, E.; Cuppage, M.D. (1975):
Acute biochemical and ultrastructural effects of gentamicin nephrotoxicity in rats.
Laboratory Investigation, 33:412-417.
- 86- Junqueira, L.C.; Carneiro, J. and Lang, A.J. (1987):
Basic Histology, 5th edition, 416-419. Lange, Med. Publ/Los., Atlos, California.

- 87- *Junqueira, L.C.; Carneiro, J. and Kelly, R.O. (1989):*
Basic Histology, sixth edition, 316-332. Lange medical
publication, Los, Altos, Connecticut and California.
- 88- *Junquera, L.C.; Carneiro, J. and Kelly R.O. (1992):*
Basic Histology, seventh edition, 320-332 and 371-390.
Long Med. Pub-Los-Altos, Connecticut california.
- 89- *Kahan, F.M.; Kropp, H.; Sudelof, J.G. and Birnbaum, J. (1983):*
Thienamycin: development of imipenem-Cilastatin.
J. Antimicrob. Chemother., 12 (Suppl. D), 1-35.
- 90- *Kawasaki, H.; Miyoshi, K. and Nomura, A. (1985):*
Toxicity study on aztreonam. 35-days subacute toxicity in
rats.
Chemotherapy, 33, (Suppl. 1), 169-189.
- 91- *Kelly, D.E.; Wood, R.L. and Enders, A.C. (1984):*
Bailey's text book of microscopic anatomy, Eighteenth
edition, PP., 590-610. Williams and Wilkins, Baltimore,
London.
- 92- *Kosek, J.C.; Mazze, R.I. and Cousins, M.J. (1974):*
Nephrotoxicity of gentamicin.
Lab. Invest. 30, 48-57.
- 93- *Koup, J.R.; Lau, A.H.; Brodsky, B. and Slaughter, R.L. (1979):*
Antimicrob. Ag. Chemother. 15: 658.
Quoted by Garrod, L.P. (1981).
- 94- *Kriz, W. and Lever, A.E. (1969):*
Renal countercurrent mechanisms: Structure and function.
Am. Heart. J. 78, 101-105.
- 95- *Kropp, H.; Sudelof, J.G.; Hujdu, R. and Kahen, F.M. (1982):*
Metabolism of thienamycin and related carbapenem
antibiotics by the renal dipeptidase, dehydropeptidase I.
Anti. Microb. Agents Chemother, 22, 62-70.
- 96- *Kropp, H.; Gerdecke, L.; Sundelof, J.G. and Kahan, F.M. (1985):*
Antibacterial activity of imipenem, the first thienamycin
antibiotic.
Rev. Infect. Dis. 7 (Suppl 3), S389-S410.

- 97- Kurtz, S.M. and Feldman, R.L. (1962):
Experimental studies on the formation of the glomerular basement membrane.
J. Ultrast. Res., 21, 6-19.
- 98- Kurt, E.J., (1992):
Histology and cell biology, second edition, PP., 239-243 and 319-323. Williams, Wilkins Baltimore, Hongkong, London, Sydney.
- 99- Lamberg, S. and Rothstein, R. (1978):
Laboratory manual of Histology and Cytology, 2nd edition, 137-140. A.V.I. Publishing Company, Inc., West port Connecticut.
- 100- Laurence, D.R. and Bennett, P.N. (1980):
Clinical pharmacology, 5th edition. PP., 132-133. Churchill Livingstone, London.
- 101- Leeson, T.S.; Leeson, C.R. and Papana, A.A. (1988):
Text, Atlas of Histology, 6th, 9th edition PP., 475-491- PP., 530-568. W.B. Saunders Company, Philadelphia, London and Toronto.
- 102- Leslie, P.G.; James, L.H. and Judy, M.S. (1992):
Board Review series Histology, Egyptian edition, PP., 230-235 and 243-251. Williams Wilkins, Baltimore, Hongkong, London, Sydney.
- 103- Lipman, B. and Neu, H.C. (1988):
Imipenem: A new carbapenem antibiotic.
Med. Clin. North Am. 72, 567-579.
- 104- Lison, L. and Dagnelie, J. (1935):
Bull-Histol. Appl. Physiol. Path. 12, 85.
Cited by Bancroft (1975).
- 105- Livermore, D.M. and Yang, Y.J. (1987):
B-lactamase lability and inducer power of newer B-lactam antibiotics in relation to their activity against B-lactamase inducibility mutants of pseudomonas aeruginosa.
J. Infect. Dis., 155, 775-782.

- 106- Loud, A. (1967):
A quantitative stereological description of the ultrastructure of normal rat liver parenchymal cells. Cell. Biology, 5, 21-90.
- 107- MacGregor, R.R. and Gentry, L.O. (1985):
Imipenem/Cilastatin in the treatment of osteomyelitis. Am. J. Med. 78 (Suppl. 6A), 100-103.
- 108- MacManus, J.F. (1946):
Histological demonstration of mucin after periodic acid. Nature 10 (158), 202-205.
- 109- Miraglia, T.; Siqueira, L.A.; Gorini, D. and Pinto, G. (1975):
Histochemical data on the liver of marmoset (callithrix Jacchus). Acta. Anat, 91, 57-70.
- 110- Moffat, D.B. (1967):
A new type of cell inclusion in the interstitial cells of the medulla of the rat kidney. J. Microsc. 6, 1073-1077.
- 111- Mohamed, T.M.; Haggag, O.G. and Tarofik, N.A. (1994):
Electron microscopic study on liver and kidney of albino rat following cephradine administration. Egypt. Soc. Pharmacol. Exp. Ther. 13 (1): 233-236.
- 112- Morel, F.; Charbardes, D. and Imbert, M. (1976):
Functional segmentation of the rabbit distal tubules by microdetermination of hormone-dependent adenylate cyclase activity. Kid. Int. 9, 264-270.
- 113- Myer, R.H. and Willums, W.L. (1954):
Alkaline phosphatase activity in normal and injured liver of mice. Anat. Rec. 119 (3): 389-395.

- 114- *Nada, (1987):*
Diseases of renal tubules, 117 edited by Dareeh Saad Streel- Cario. Egypt.
- 115- *Norrby, S.R.; Alestig, K.; Bjornegard, B.; Burman, L.A.; Ferber, F.; Huber, J.L.; Jones, K.H.; Kahan, F.M.; Kahan, J.S.; Kropp, H.; Meisinger, M.A.P. and Sundelof, J.G. (1983):*
Urinary recovery of N-formimidoyl thienamycin (MKO787) as affected by coadministration of N-formimidoyl thienamycin dehydropeptidase inhibitors.
Antimicrob. Agents. Chemother. 23, 300-307.
- 116- *Norrby, S.R.; Rogers, J.D.; Ferber, F.; Jones, K.H.; Zacchei, A.G.; Weidner, L.L.; Demetriades, J.L.; Gravallesu, D.A. and Hsieh, J.Y. (1984):*
Disposition of radiolabeled imipenem and cilastatin in normal health of volunteers.
Antimicrob. Agents chemother. 26, 707-714.
- 117- *Paget, G.E. and Barnes, T.M. (1964):*
Toxicity tests in evaluation of drug activity pharmacometrics. Laurence, 135, D.R. and Bacharach, A.L. Academic Press, London, New York.
- 118- *Pearse, A.G.E. (1968):*
Histochemistry, Theoretical and applied, 3rd edition, volume I, PP , 220-250. Little Brown, Boston.
- 119- *Pearse, A.G.E. (1972):*
Histochemistry, theoretical and applied. Third edition Vol. 2, 762-801 and 1017-1045. Churchill Livingstone, Edinburgh and London.
- 120- *Plaa, C.A. (1993):*
Toxic responses of the liver. In: Klassen, C.D. Andur, M.O. and Doull, J. (eds): Casarett and Douell's. Toxicology, the basic science of Poisons. MacMillan, New York, PP., 334-353.

- 121- Pnnington, J.E. and Johnson, C.E. (1982):
Comparative activities of N-formimidoyl thienamycin,
tricarcillin and tobromycin against experimental
pseudomonas aeruginosa pneumonia.
Antimicrob. Agents Chemother., 22, 406-408.
- 122- Popper, H.; Paronetto, F.; Schaffner, F. and Ferez, V. (1961):
Studies on hepatic fibrosis.
Lab. Invest. 10, 265-290.
- 123- Popper, H. (1975):
Drug induced liver injury in (The liver), Edition Gall, E
and Mostofi, F.K.; Baltimore: Williams and Wilkins Co.,
182-196.
- 124- Purton, M.D. (1969):
Ultrastructure of the liver in the domestic fowl.
J. Zool. 20, 152-182.
- 125- Quinn, J.P.; Studemeister, A.E.; Divcenzo, C.A. and Lerner, S.A.
(1988):
Resistance to imipenem in pseudomonas aeruginosa.
Clinical experience and biochemical mechanisms.
Infect. Dis. 10, 892-898.
- 126- Ritzerfeld, V.W. (1983):
N-formimidoyl thienamycin in animal studies.
Arzneimittel. Forschung, 33, 470-472.
- 127- Roach, P.J. (1966):
Liver glycogen synthesis.
The enzymes, 22, 499-539.
- 128- Roche, J. (1950):
A textbook (the enzymes), Second edition, 1, 275-277.
Sunner, J.B. and Myrbacks, Acad, Press, New York.
- 129- Rodewold, R. and Karnovsky, M.J. (1974):
Porous structure of glomerular slit diaphragm in the rat
and mouse.
J. Cell. Biol., 60, 423.

- 130- Rogers, J.D.; Meisinger, M.A.P.; Feber, F.; Calandra, G.B.; Demetraidis, J.L. and Bland, J.A. (1985):
Pharmacokinetics of imipenem and cilastatin in volunteers.
Rev. Infect. Dis. 7 (Suppl 3), S 435-446.
- 131- Rohrback, D.H.; Hassell, J.R.; Kleiman, H.K. and Martin, G.R. (1982):
Alterations in the basement membrane (Heperin sulphate) proteoglycan in diabetic mice.
Diabetes, 131, 185-188.
- 132- Roodyn, D.B. (1967):
Roodyn enzyme cytology.
Mitochondria, 103. Academic press. London.
- 133- Rosenblatt, J.E. (1986):
Antimicrobial suceptibility testing of anaerobes.
In antibiotics in laboratory medicine. Second edition,
Edited by Volorian-Baltimore, Willams, Wilkins, 159-180.
- 134- Rutenburg, A.M. and Seligman, A.M. (1955):
The histochemical demonstration of acid phosphatase by post incubation coupling technique.
J. Histochem. Cytochem. 3, 455-460.
- 135- Salata, R.A.; Gebhart, R.L.; Palmer, D.L.; Wade, B.H.; Scheld, W.M.; Groschet, D.H.M.; Wenzel, R.P.; Mandell, G.L. and Dama, R.J. (1985):
Pneumonia treated with imipenem/cilastatin.
Am. J. Med. 78 (Suppl. 6A), 104-109.
- 136- Saxon, A.; Beall, G.N.; Rohr, A.S. and Adelman, D.C. (1987):
Immediate hypersensitivity reaction to beta-lactam antibiotics.
Ann. Intern. Med. 107, 204-215.
- 137- Scandianavian Study Group (1984):
Imipenem/cilastatin versus gentamicin/clindamycin for treatment of serious bacterial infection.
Lancet. I, 868-871.

- 139- *Scheiman, T.I.; Fish, A.J.; Brown, D.M. and Miacheal, A.J. (1976):*
Human glomerular smooth muscle (mesangial cells) in culture.
Lab. Invest. 34, 150-158.
- 139- *Scheld, W.M. and Keeley, J.M. (1982):*
Thienamycin (MK0787) therapy of experimental staphylococcus aureus endocarditis (abstract). In Program of 82 and annual meeting of the American Society of Microbiology, A 25.
- 140- *Schiff, L. and Schiff, E.R. (1987):*
Diseases of the liver, sixth edition, 136-139. J.B. Lippincott, Company, London and New York.
- 141- *Schrier, R.W. and Gottschalk, C.W. (1988):*
Diseases of the kidney, 4th edition, PP., 3-31. Little Brown Company, Boston, Toronto.
- 142- *Scully, B.E.; Swabb, E.A. and Neu, H.C. (1983):*
Pharmacology of aztreonam after intravenous infusion.
Antimicrob. Agents. Chemother. 24, 18-22.
- 143- *Sherlock, S. and Walshe, V. (1947):*
Hepatic alkaline phosphatase "Histochemical and microchemical studies on liver tissue in normal subject and in liver and bone diseases.
J. Path. Bact., 59, 615.
- 144- *Sherlock, S. (1985):*
Drugs and the liver. In "Diseases of the liver and Biliary system". 7th edition. Blackwell scientific publications: Oxford, London, Edinburgh, 304-312.
- 145- *Snell, R.S. (1984):*
Clinical and Functional Histology, 3rd edition. 443-450.
Little Brown Company, Boston and Toronto.
- 146- *Sobel, J.D. (1989):*
Imipenem and aztreonam.
Infect. Dis. Clin., North. Am. 3, 613-624.

- 147- *Stebly, R.W. and Rudofsky, V. (1971):*
Renal tubular disease and autoantibodies against tubular basement membrane induced in albino-rat.
J. Immuno, 107, 589.
- 148- *Swenson, J.M.; Wallance, R.J.Jr.; Silcox, V.A. and Thornsberry, C. (1985):*
Antimicrobial susceptibility of five subgroups of *Mycobacterium fortuitum* and *Mycobacterium chelonae*.
Antimicrob. Agents Chemother. 28, 807-811.
- 149- *Symposium (1988):*
Clinical evaluation of a novel intramuscular formulation of imipenem/cilastatin. Abstract No. W. 27, 6th, Mediterranean congress of chemotherap, Taormina, Italy.
- 150- *Tausk, F.; Evans, M.E.; Patlerson, L.S.; Federspiel, C.F. and Stratton, C.W. (1985):*
Imipenem induced resistance to anti-pseudomonal β -lactams in *pseudomonas aeruginosa*.
Antimicrob. Agents Chemother, 28, 41-45.
- 151- *Tisher, C.C. and Modson, K.M. (1991):*
Anatomy of the kidney In: *The kidney*, edited by Brenner, B.M. and Rector, F.L. 4th edition, 1, 3-76, W.B. Saunders Company, Philadelphia.
- 152- *Troyer, H. (1980):*
Principles and techniques of Histochemistry 1st edition, 92-104 and 216-219.
Little Brown and Company, Boston.
- 153- *Trump, B.F.; Goldblatt, P.J. and Stowell, R.E. (1965):*
Studies on necrosis of mouse liver in vitro, ultrastructural alterations in the mitochondria of hepatic parenchymal cells. *J. Ultrast. Res.*, 5: 116-120.
- 154- *Tune, B.M. and Kempson, R.L. (1985):*
Nephrotoxic drugs.
Brit. Med. J. 31, 635-639.

- 155- *Verberckmoes, R.; Vandamme, B.; Clement, J.; Amery, A. and Michielson, P. (1976):*
Butter's syndrome with hyperplasia of renomedullary cells, successful treatment with indomethacin.
Kidney int., 9, 302-307.
- 156- *Wachstein, M. and Meisel, E. (1957):*
Enzymatic histochemistry of ethionine induced liver cirrhosis and hepatoma.
J. Histochem. Cytochem. 7, 189-901.
- 157- *Wachstein, W. and Meisel, E. (1960):*
J. Histochem. Cytochem., 8: 387.
Cited by Bancroft, 1975.
- 158- *Walter, J.B. and Israel, M.S. (1974):*
General pathology. Fourth edition, 50-60, Churchill Livingstone. Edinburgh, London, New York.
- 159- *Walter, J.B. and Israel, M.S. (1979):*
General pathology, 5th ed., 50-53.
Churchill Livingstone, Edinburgh, London, New York.
- 160- *Walter, J.B. and Israel, M.S. (1983):*
Cell response to injury.
General pathology, 6th edition, 51. Churchill Livingstone, Edinburgh, London and New York.
- 161- *Walter, J.B. and Israel, M. (1996):*
General pathology, Churchill Livingstone, New York, 7th edition, 87-100. Churchill Livingstone, Edinburgh, London.
- 162- *Wang, C.; Calandra, G.B.; Aziz, M.A. and Brown, K.R. (1985):*
Efficacy and safety of imipenem/cilastatin. A review of worldwide clinical experience.
Rev. Infect. Dis. 7 (suppl. 3), 528-536.
- 163- *Wang, C.; Pappas, F. and Cook, T. (1987):*
Intramuscular imipenem/cilastatin in treatment of mild to moderate infection.
Scand. J. Infect. Dis. S52, 32-39.

- 164- Wellwood, J.M.; Lovell, D.; Thompson, A.E. and Tigh, J.R. (1974):
Renal damage caused by gentamicin.
Brit. M.J. 2, 261-263.
- 165- Wellwood, J.M.; Lovell, D.; Thomspens, A.E. and Tigh, J.R. (1976):
Renal damage caused by gentamicin. A study of the effects on renal morphology and urinary enzyme excretion.
J. Path., 118, 171-182.
- 166- Welling, L.W. and Welling, D.J. (1974):
Surface areas of brush border and lateral cell walls in the rabbit proximal nephron.
Kid. Int., 8, 343.
- 167- Whaley, W.G. (1972):
Golgi apparatus influence on cell surface.
Science, 10, 175-196.
- 168- William, J.K. and Harry, J.C. (1994):
Essential of Histology, (Text/Atlas/ Review) first edition, PP. 472-476 and 547-552. Little, Brown and Company Boston, New York, Toronto and London.
- 169- Wroblewski, F. and LaDue, J.J. (1955):
Serum glutamic oxaloacetic transaminase activity as an index of liver cells injury. A preliminary report.
Am. Int. Med., 43, 345-360.
- 170- Yoshimura, F. and Nikaido, H. (1985):
Diffusion of B-lactam antibiotics through the porin channels of Escherichia Coli, K-12.
Antimicrob-Agents Chemother, 27, 84-92.
- 171- Zaki, M.M. and El-Gendy, I.S. (1992):
Electron microscope study on kidney and liver of albino rat following aztreonam administration.
Egypt. J. Histol. 15 (2), 489-497.