

BIBLIOGRAPHY :

- ABRAHAM E.P., CHAIN E., FLETCHER C.M., GARDNER A.D., HEATLEY N.G., JENNINGS M.A. & FLOREY H.W. (1941): Further observations on penicillin. Lancet, ii, 177-188.
- ADAMSON R.H., BORGMAN R.L., FOUTS J.R. & LONG J.P. (1961): The neuromuscular blocking action of paromomycin. Antibiotics and Chemotherapy, 11, 429-433.
- ADAMSON R.H., MARSHALL N. & LONG J.P. (1960): Neuromuscular blocking properties of various polypeptide antibiotics. Proc. Soc. expt. Biol. Med., 105, 494-497.
- ARUNLAKSHANA O. & SCHILD H.O. (1959): Some quantitative use of drug antagonists. Br.J.Pharmac. Chemother. 14, 48-58.
- BARCZAK J.S. & VANE J.R. (1965): The release of catecholamines from the adrenal medulla by histamine. Br.J.Pharmac. 25, 728-747.
- BARTZ Q.R., EHRLICH J., MOLD J.D., PENNER M.A. & SMITH R.M. (1951): Viomycin, a new tuberculo-static antibiotics Am.Rev.Tuber., 63, 4-6.
- BEIN H.J. & MEIER R. (1953) : Zur pharmakologischen Analyse der Blutdruck steigerung durch coramin.

- histamine, und nicotine bei der narkotisierten katze. Naunyn-Schmied-berg's Arch.exp.Path. Pharmak., 219, 273-283.
- BEZZI G. & GESELL G.L. (1961): Influence of antibiotics on neuromuscular transmission in mammals. Antibiotics and chemotherapy, 11, 710-714.
- BOWIE J.H., COX D.A., JOHNSON A.W. & THOMAS G. (1964): Viomycin. Tetrahedron Letters, No.45, 3305.
- BOWIE J.H., JOHNSON A.W. & THOMAS G. (1964a): The chromophore of viomycin. Tetrahedron Letters, No. 15, 863.
- BRAZIL O.V. (1960): Effect of streptomycin on denervated skeletal muscle. Folia.Clin.et.Biol., 29, 20-27. Cited in C.A., 56, 879f(1962).
- BRAZIL O.V. & CORRADO A.P. (1957): The curariform action of streptomycin. J.Pharmac.exp.Ther., 127, 452-459.
- BRAZIL O.V., CORRADO A.P. & BERTI F.A. (1959): Neuromuscular block produced by streptomycin and some of its degradation products. Curare and curarelike agents. ed. Aluisio Pimenta. Proceedings International Symposium. Rio de Janeiro, 1957, pp.415-421. Elsevier Publishing Co.
- BRAZIL O.V. & FRANCESCHI J.P. (1969): The nature of neuromuscular block produced by neomycin and gentamycin. Arch.int.Pharmacodyn., 179, 78-85.

- BRAZIL O.V., RAMOS A.O., SPERENDIO L.G. & MARTINEZ A.L. (1961): Viomycin, pharmacological action on myoneural junction, ganglionic synapse and smooth muscle. *Chemotherapia*(Basel), 3, 521-531.
- BRINK N.G. & FOLKERS K. (1949): Chemistry of streptomycin: Streptomycin, Nature and practical application Ed. Waksman S.A. The Williams and Wilkins Co., Baltimore, p. 36.
- BRINK N.G., KUEHL F.A.Jr., FLYNN E.G. & FOLKERS K. (1946): Streptomyces antibiotics XI. The structure of tetraacetyl bisdesoxystreptobiosamine. *J.Am.Chem.Soc.*, 68, 2405.
- BRINK N.G., KUEHL F.A.Jr., FLYNN E.G., & FOLKERS K. (1948): Streptomyces antibiotics XVI. The structure of bisdesoxystreptose, dihydrodesoxystreptose and tetracetyl-bis-desoxystreptobiosamine. *J.Am.Chem.Soc.*, 70, 2085-2091.
- BURN J.H. (1952): Practical pharmacology. Blackwell & Scientific Publication (1952), p. 1-3.
- BURN J.H. & DALE H.H. (1926): The vasodilator action of histamine and its physiological significance. *J.Physiol* (Lond.), 61, 185-214.
- CAMPOS H.A. & FREIDMAN A.H. (1963): The influence of acute sympathetic denervation, reserpine and cholinexylyl ether on vagal escape. *J.Physiol* (Lond.), 169, 249-262.

- CARTER H.E., CLARK R.K., DICKMAN S.R., LOO Y.H., MEEK J.S., SKELL P.S., STRONG W.A., ALBERI J.T., BARTZ Q.R., BINKLAY S.B., CROOKS N.M., HOOPER I.R. & REBSTOCK M.C. (1946): The degradation of streptomycin and structure of streptidine and streptamine. *Science*, 103, 540.
- CARTER H.E., LOO Y.H. & ROTHROCK J.W. (1949): Degradation products of streptamine:  $\alpha$ -r-diamino  $\beta$ -hydroxyglutaric acid. *J.Biol.Chem.*, 179, 1027-1035.
- COFFEY G.L., ANDERSON L.E., FISHER M.W., GALBRITH M.M., HILLEGAS A.B., KOSHBERGER D.L., THOMSON P.E., WESTON K.S. & ELHRICH J. (1959): Biological studies of paromomycin. *Antibiotics and Chemotherapy*, 9, 730-738.
- CORRADO A.P. (1958): Ganglioplegic action of streptomycin. *Arch.int.Pharmacodyn.*, 114, 166-178.
- CORRADO A.P., RAMOS A.O. & De ESCOBAR C.T. (1959): Neuromuscular blockade by neomycin, potentiation by ether anaesthesia, and d-tubocurarine and antagonism by calcium and prostigmine. *Arch.int.Pharmacodyn.*, 121, 380-394.
- CORRADO A.P. & RAMOS A.O. (1960): Some pharmacodynamic aspects of new antibiotic kanamycin. *Rev.Brasil.Biol.*, 20, 43-50. Cited in *C.A.*, 54, 23023b (1960).

- CRON M.J., EVANS D.L., PALERMITI F.M., WHITEHEAD D.F., HOOPER I.R., PAUL C.H.V. & LEMIEUX R.U. (1958c): Kanamycin V. The structure of kanosamine. *J.Am.Chem.Soc.*, 80, 4141-4142.
- CRON M.J., FARDIG O.B., JOHNSON D.L., SCHMITZ H., WHITEHEAD D.F., HOOPER I.R. & LEMIEUX R.U. (1958a): Kanamycin II. The hexosamine units. *J.Am.Chem.Soc.*, 80, 2342.
- CRON M.J., FARDIG O.B., JOHNSON D.L., WHITEHEAD D.F., HOOPER I.R. & LEMIEUX R.U. (1958b): Kanamycin IV. The structure of Kanamycin. *J.Am.Chem.Soc.* 80, 4115.
- CRON M.J., JOHNSON D.L., PALERMITI F.M., PERRON Y., TAYLOR H.D., WHITEHEAD D.F. & HOOPER I.R. (1958) Kanamycin I., characterisation and acid hydrolysis studies. *J.Am.Chem.Soc.*, 80, 752.
- DE LA LANDE I.S. & RAND M.J. (1965): A simple isolated nerve-blood vessel preparation. *Aust.J.exp.Biol.Med.Sci.*, 43, 639-656.
- DUBOS R.J. (1939): Bactericidal effect of an extract of soil bacillus on gram positive cocci. *Proc.Soc.exptl.Biol.Med.*, 40, 311-312.
- DUTCHER J.D. & DONIN M.N. (1952): The identity of neomycin A., neamine and methanolysis product of neomycin B and C. *J.Am.Chem.Soc.*, 74, 3420-3422.

- DUTCHER J.D., HOSANSKY N., DONIN M.N. & WINTERSTEINER O. (1951): Neomycin B and C and some of their degradation products. *J.Am.Chem.Soc.*, 73, 1384.
- DUTCHER J.D., HOSANSKY N. & SHERMAN J.H. (1953): Chemical assay for neomycin. *Antibiotics and Chemotherapy*, 3, 534-536.
- DYER J.R. & TODD A.W. (1963): The absolute configuration of streptidine in streptomycin. *J.Am.Chem.Soc.*, 85, 3896-3897.
- DYER J.R., HAYES H.B., MILLER E.G. & NASSAR R.F. (1964): Viomycin I. The structure of viomycin. *J.Am.Chem.Soc.*, 86, 5363-5364.
- DYER J.R., KELLOGG C.K., NASSAR R.F. & STREETMAN W.E. (1965): Viomycin II. The structure of viomycin. *Tetrahedron Letters*, No. 10, 585.
- DZOLJIC M. & ANTANACKOVIC D. (1965): Actions of streptomycin on guinea pig ileum peristalsis. *Arch.int.Pharmacodyn.*, 156, 279-284.
- ELMQUIST D. & JOSEFSSON J.O. (1962): The nature of the neuromuscular block produced by neomycin. *Acta.Physiol.Scand.*, 54, 105-110.
- ENGEL M.L. & DENSON J.S. (1957): Respiratory depression due to neomycin. *Surgery*, 42, 862-864.
- EVANS R.M. (1965): Antibiotics derivable from sugars. The chemistry of the antibiotics used

- in medicine. ed. Evans. R.M. Pergamon Press (1965), pp.75-101.
- FEIGL F. (1954): Spot Test. Ed.Fritz Feigl. Translated by Oesper. R.E. Vol.1. 4th Edn. Elsevier publishing Company, 1954, pp.203-206.
- FELDBERG W. (1941): The action of bee venom, cobra-venom, lysolecithin on the adrenal medulla. J. Physiol(Lond.), 99, 104-118.
- FINLEY A.C., HOBBY G.L., HOCHSTEINF, LESS T.M., LENNERT T.F., MEANS J.A., P'AN S.Y., REGNA P.P., ROUTIEN J.B., SOBIN B.A., TATE K.B. & KANE J.H. (1951): Viomycin, a new antibiotics active against mycobacteria. Am.Rev.Tuber., 63, 1-3.
- FLEMING A. (1929): On the antibacterial action of cultures of a penicillium, with special reference to their use in the isolation of B. influenza. Br.J.exp.Path., 10, 226-236.
- FLOREY H.W. (1949): Historical Introduction. In Antibiotics Vol.I. ed:Florey H.W., Chain E., Heatley N.G., Jennings M.A., Sanders A.G., Abraham E.P., and Florey M.E. Oxford University Press, New York, 1949.
- FRIED J. & WINTERSTEINER O. (1945): Crystalline reineckates of streptothricin and streptomycin. Science, 101, 613-615.

FURCHGOTT R.F. & BHADRAKOM S. (1953): Reactions of strips of rabbit aorta to epinephrine, isopropyl-arterenol, sodium nitrite and other drugs. *J.Pharmac.exp.Ther.*, 108, 129-143.

GADDUM J.H., HAMEED KA., HATHWAY D.E. & STEPHENS F.F. (1955): Quantitative studies of antagonists for 5-hydroxytryptamine. *Q.J.Physiol.*, 40, 49-74.

GOKHALE S.D., GULATI O.D. & KELKAR V.V. (1967): Supersensitivity to catecholamines following guanethidine. *Br.J.Pharmac.Chemotherap.*, 30, 445-462.

GOLDBERG L.E. (1964): Pharmacological study of kanamycin. *Antibiotiki*, 9, 414-420. Cited in C.A. 61, 878f(1964).

GOMAZKOV O.A. (1963): Effect of antibiotics on the isolated heart of cold blooded and warm blooded animals. *Antibiotiki*, 8, 147-151. Cited in C.A., 62, 4475g(1965).

GOUREVITCH A., HUNT G.A. & LEIN J. (1958): Antibacterial activity of kanamycin. *Antibiotics and Chemotherapy*, 8, 149-159.

GREIG-SMITH R. (1917): Contribution to our knowledge of soil fertility: the action of certain micro-organisms upon the number of bacteria in the soil. *Proc.Linnean Soc., N.S.Wales*, 42, 162-166.

HASKELL T.H., FUSARI S.A., FROHARDT R.P. & BARTZ  
Q.R.(1952): The chemistry of viomycin. J.Am.  
Chem.Soc.,74,599-602.

HEILMAN D.H., HEILMAN F.R., HINSHAW H.C., NICHOLOS  
D.R. & HERREL W.E. (1945): Streptomycin,  
absorption, diffusion, excretion and toxicity.  
Am.J.Med.Sc.,210,576-584.

HINSHAW H.C. & FELDMAN W.H. (1945): Streptomycin  
in treatment of clinical tuberculosis: a  
preliminary report. Proc.Staff.Meet.Mayo Clin.,  
20,313-318.

HIRATA M. (1964): Bacteriostatic chemotherapeutics  
and malignant growth: change of liver catalase  
activity under prolonged administration of bac-  
teriostatic chemotherapeutic.Hiroshima.J.Med.  
Sc.,13,1-16. Cited in C.A.,63,4835f(1965).

HORII S., HITOMI H. & MIYAKE A. (1963): Chemistry  
of zygomycin A: Separation of zygomycin A and  
zygomycin A<sub>1</sub> and their characterisation. J.  
Antibiotics Ser.A.(JAPAN),16,144-145.

HUNTER G.D. (1956): G.Microbiol.,2,312. Cited in  
Chemistry and classification of antibiotics.  
Abraham E.P. and Newton G.G.E.(1960)Br.Med.  
Bull.,16,3-10.

- IWATSUKI K., UEDA T., YAMADA A., NISHIMURA S. & KANEMARU K. (1958): Effect of streptomycin on the action of muscle relaxants. Med.J.Shinshu Univ., 3, 229-330. Cited in C.A., 56, 9358d(1962).
- JESKE J., SZURSKA H., BORZECKI Z. & LASTOWSKI Z. (1964): Pharmacodynamic properties of viomycin. Ann.Univ.Mariae Curie Skłodowska Lubin-Polenia Sec.D., 18, 311-317. Cited in C.A., 62, 9647a(1965).
- JINDAL M.N. & DESHPANDE V.R. (1958): Neuromuscular blockade by streptomycin and dihydrostreptomycin. Br.J.Pharmac.Chemother., 15, 506-509.
- KUBIKOWSKI P. & SZREŃIAWSKI Z. (1963): The mechanism of the neuromuscular blockade by antibiotics. Arch.int.Pharmacodyn., 146, 549-560.
- KUEHL F.A., FLYNN E.G., BRINK N.G. & FOLKERS K. (1946): Streptomyces antibiotics X. The degradation of streptomycin and dihydrostreptomycin with ethylmercaptan. J.Am.Chem.Soc., 68, 2096-2101.
- KUEHL F.A., PECK R.L., WALTZ A. & FOLKERS K. (1945): Streptomyces antibiotics I. Crystalline salts of streptomycin and streptothricin. Science, 102, 34-35.
- LEACH B.E., De VRIES W.H., NELSON H.A., JACKSON W.G. & EVANS J.S. (1951): Isolation and characterisation of neomycin. J.Am.Chem.Soc., 73, 2797-2800.

LEACH B.E. & TEETERS C.M. (1951): Neamine, an  
antibacterial degradation product of neomycin.

J.Am.Chem.Soc.,73,2794-2797.

LEADERS F., PITTINGER C.B. & LONG J.P. (1960):  
Some pharmacological properties of selected  
antibiotics. *Antibiotics and Chemotherapy*,10,  
503-507.

LEMIEUX R.U., POLGLASE W.J., De WALT C.W. & WOLFROM  
M.L. (1947): Degradative studies on streptomycin.  
J.Am.Chem.Soc.,69,1838.

MAEDA K., UEDA M., YAGASHITA K., KAWAJI S., KANDO S.  
MURASE M., TAKEUCHI T., OKAMI Y. & UMEZAWA H.  
(1957): Studies on kanamycin, *J.Antibiotics.*  
*Ser.A.(JAPAN)*,10,228-232.

MARSHAL E.K. (1948): Absorption, distribution and  
excretion of streptomycin. *J.Pharmac.exp.Ther.*  
92,43-48.

MASAYASU YAMASAKI (1954): The effect of antituber-  
culous substance on the autonomic nervous  
system I. The pharmacodynamic function of  
streptomycin. *Kekkaku (Tuberculosis)*,29,286-290.  
Cited in C.A.,48,13091a(1954).

MIDDLETON W.H., MORGAN D.D. & MOYERS F. (1957):  
Neostigamine therapy for apnoea occurring after  
administration of neomycin. *J.Am.Med.Ass.*,  
165,2186-2187.

MILLER D.A., PENDELTON R.G. & RICHMOND A.T. (1968):

Cardiac effects of vagal stimulation in the anaesthetised cats. Br.J.Pharmac., 33, 390-395.

MOLITOR H. (1949): The pharmacology of streptomycin; streptomycin, nature and practical application ed. Waksman S.A. The William and Wilkins Comp., Baltimore, 1949, pp. 254-275.

e/

MOLITOR H., GRAESLE O.E., KUNA S., MUSHETT C.W. & SILBER R.H. (1946): Some toxicological and pharmacological properties of streptomycin. J. Pharmac. exp. Ther., 86, 151-173.

MOLITOR H. & KUNA S. (1949): Pharmacological studies of the neurotoxic properties of streptomycin I. The relationship between acute and delayed neurotoxic effects. Arch.int.Pharmacodyn., 78, 197-202.

MOORE J.I. (1967): Effect of cocaine on vagal escape in the open chest dog. Proc.Soc.exp.Biol.Med., 124, 163-167.

NAIMAN J.G., SAKURA K. & MARTIN J.D. (1965): The antagonism of calcium and neostigmine to kanamycin induced neuromuscular paralysis. J.Surg. Res., 5, 323-328. C.A., 63, 3490g (1965).

OKA H. (1965): Auditory toxicity of streptomycin, and kanamycin in tuberculous patients. J.Antibiotics. Ser. A.(JAPAN), 18, 89-98.

- OSTERLOW G. (1963): Neuromuscular effecte basischer streptomyces antibiotica und deren aufhebung durch calcium. *Arzneimittel Forsch.*, 11, 1139-1142. *u/*
- OWADA K. (1962): Experimental studies on the toxicity of kanamycin its hydrolysed products and neomycin. *Chemotherapia (Basel)*, 5, 277-293.
- PECK R.L., GRABER R.P., WALTIA PEEL E.W., HOFFHINE C.E. & FOLKERS K. (1945): Streptomyces antibiotics IV. Hydrolytic cleavage of streptomycin to streptidine. *J.Am.Chem.Soc.*, 68, 29-31.
- PECK R.L., HOFFHINE C.E., GALE P.H. & FOLKERS K. (1949): Streptomycin antibiotics, XXIII. Isolation of neomycin A. *J.Am.Chem.Soc.*, 71, 2590-2591.
- PECK R.L., HOFFHINE C.E., GALE P.H. & FOLKERS K. (1953): Streptomyces antibiotics XXV. Isolation of neomycin A. *J.Am.Chem.Soc.*, 75, 1018-1021.
- PECK R.L., HOFFHINE C.E., PEEL E.W., GRABER R.P., HOLLY F.W., MOZINGO R. & FOLKERS K. (1946): Streptomyces antibiotics VII. Structure of streptidine. *J.Am.Chem.Soc.*, 68, 776-781.
- PERRY W.L.M. (1968): Pharmacological experiments on isolated preparations. By Staff of the Department of Pharmacology, University of Edinburgh. E & S Livingstone Ltd., Edinburgh and London (1968), p.108.

- PITTINGER C.B. & LONG J.P. (1958): The neuromuscular blocking action of neomycin sulphate. *Antibiotics and Chemotherapy*, 8, 198-203.
- POPOVICI G.G., MOISA L., NEGOITA H., MANOILA V., BOTEZ E., HAFNER R. & GUMENI N. (1965): The influence of certain antibiotics on intestinal motor activity. *Arch.int.Pharmacodyn.*, 154, 374-381.
- POPOVICI G.G., NEGOITA M., MOISA L., MANOILA V., HAFNER R. & BOTEZ E. (1967): The influence of some antibiotics on uterine motor activity in the guinea pig. *Arch.int.Pharmacodyn.*, 166, 20-25.
- PRIDGEN J.E. (1956): Respiratory arrest thought to be due to intraperitoneal neomycin. *Surgery*, 40, 571-574.
- RAMOS L., BUSTOS R.E., DeLUCA A.M. & RAMOS A.D. (1962): Comparative study of the pharmacologic activity of the antibiotics streptomycin, neomycin, kanamycin and viomycin on autonomic ganglia, neuromuscular junction, smooth muscle and heart. *Rev.Brasil.Biol.*, 22, 221-226. Cited in C.A., 58, 11873g (1963).
- RINEHART K.L., AGROUDELIS A.D., CULBERTSON T.P., CHILTON W.S. & STREIGLER K. (1960): Chemistry of the neomycins VI. Structure of neobiosamine B. *J.Am.Chem.Soc.*, 82, 2970-2971.

- RINEHART K.L., CHILTON W.S., HICHENS M. & PHILLIP-SBORN W. (1962): Chemistry of neomycins XI. N.M.R. assignment of the glycosidic linkages. *J.Am.Chem.Soc.*, 84, 3216-3218.
- RINEHART K.L., HICHENS M. & AGROUDELIS A.D. (1962): Biogenesis of neomycins. Antimicrobial agents and Chemotherapy (1961), 268-273. ed. FINLAND M. & SAVAGE G.M. Proceedings of 1st International Conference on Antimicrobial Agents and Chemotherapy.
- RINEHART K.L., HICHENS M., FUGHT J.L. & CHILTON W.S. (1962): Structural and biosynthetic studies on neomycins. Antimicrobial agents and Chemotherapy (1962), pp.193-200.
- RINEHART K.L. & WOO P.W.K. (1958): Chemistry of the neomycins, III. The structure of neobiosamine *C.J.Am.Chem.Soc.*, 80, 6463-6464.
- RINEHART K.L., WOO P.W.K. & ARGOUDELIS A.D. (1958). Chemistry of neomycins IV. Isolation of neosamines B and C. Stereochemistry of neobiosamine...*C.J.Am.Chem.Soc.*, 80, 6461-6462.
- SCHATZ A., BUGIE E. & WAKSMAN S.A. (1964): Streptomycin, a substance exhibiting antibiotic activity against gram-negative and gram-positive bacteria. *Proc.Soc.exp.Biol.Med.*, 55, 66-69.

- SCHMITZ H., FARDIG O.B., O'HERRON F.A., ROUSCHE M.A.  
AND HOOPER I.R. (1958): Kanamycin III. Kanamy-  
cin B. J.Am.Chem.Soc., 80, 2911-2912.
- SIKH S.S. & SACHADEV K.S. (1965): Duration of the  
neuromuscular block produced by streptomycin.  
Br.J.Anaesth., 37, 158-160.
- SLATER I.H. & DRESSEL P.E. (1952): The pressor  
effect of histamine after autonomic ganglion  
blockade. J.Pharmac.exp.Therap., 105, 101-107.
- SOKOLL M.D. & DIECKE F.P.J. (1969): Some effects  
of streptomycin on frog nerve in vitro. Arch.  
int.Pharmacodyn., 177, 332-339.
- SPENCER J.N., HARTELL G.P. & SCHULTZ F.H. (1950):  
Neomycin toxicity studies. Fed.Proc., 9, 317.
- SPERENSKAYA T.A. (1964): Inhibition of the toxic  
action of streptomycin on nerve muscle prepara-  
tion from a cold blooded animal. Dokl. Akad.  
Nauk. S.S.S.R., 155, 719-720. Cited in C.A., 62,  
1133a(1964).
- STEBBINS R.B., GRAESSLE O.E. & ROBINSON H.J. (1948):  
Studies on absorption and excretion of strepto-  
mycin in animals. Proc.Soc.exp.Biol.Med., 60,  
127-128.
- SWAIN H.H., KIPLINGS G.E. & BRODY T.M. (1956):  
Actions of certain antibiotics on the isolated  
dog heart. J.Pharmac.exp.Ther., 117, 151-159.

SWART E.A., LECHEVALIER H. & WAKSMAN S.A. (1951):

The identity of the neomycin complex as measured by counter current distribution and microbial analysis. J.Am.Chem.Soc., 73, 3253-3255.

SZYGIELSKI J. (1932): Die adrenalinabsondernde Wirkus des histamine and ihre Beinflunsung durch Nikatin. Naunyn-Schmiedberg's Arch. expt.Path.Pharmak., 166, 319-322.

TIMMERMAN J.C., LONG J.P. & PITTINGER C.B. (1959): Neuromuscular blocking properties of various antibiotic agents. Toxicol.Appl.Pharmacol., 1, 299-304.

TISCH D.E., HUFTALEN J.B. & DICKISON H.L. (1958): Pharmacological studies with kanamycin. Ann. N.Y.Acad.Sci., 76, 44-65.

TRENDELENBURG U. (1961): The pressor response of cat to histamine and pilocarpine. J.Pharmac.exp. Ther., 131, 65-72.

UMEZAWA H., ITO Y. & FUKATSU S. (1958): Partial structure of kanamycin. J.Antibiotics Ser.A. (JAPAN), 11, 120-121.

UMEZAWA H., UEDA M., MAEDA K., YAGISHITA K., KONDO S., OKAMI Y., UTAHARA R., OSATO Y., NITTA K. & TAKEUCHI T. (1957): Production and isolation of a new antibiotic kanamycin. J.Antibiotics Ser.A. (JAPAN), 10, 181-188.

- UNITED STATES Pharmacopia XV (1955): Recording mercury manometer page:837. The Pharmacopeia of the United States of America. Mack Printing Company. Easton, Pa. U.S.A.
- VEIS R.A. & BYKOVA M.A. (1965): Comparative pharmacological characteristics of antituberculosis antibiotics. Probl.Tuberkuleza 1965(a),67-71.  
Cited in C.A.,65,6142a(1966).
- VEIS R.A., STOROZHEV I.A. & BERZINE B.K. (1963): Pharmacology of florimycin (Viomycin): Antibiotiki,8,910-914. Cited in C.A.,62,958g (1965).
- VERMIER V.G. & ALLEVA F.R. (1960): Bioassay of kanamycin toxicity. Fed.Proc.,19,266.
- VOGT M.(1952): The secretion of the denervated adrenal medulla of the cat. B.J.Pharmac.,7, 325-330.
- VULLEMEN P. (1889): Antibiose et symboise. Assoc. france.avance.Sci.Paris.,2,525-542. Cited in Actinomycetes Ed.Waksman S.A. and Lechevalier H.A. Williams and Wilkin Co. Baltimore, p.9. e/
- WAKSMAN S.A. (1947): What is an antibiotic or an antibiotic substance? Mycologia,39,565-569.
- WAKSMAN S.A. (1947a): Microbial antagonisms and antibiotic substances. ed. Waksman S.A. 2nd ed. Commonwealth Fund, New York.

WAKSMAN S.A. & LECHEVALIER H. (1949): Neomycin a new antibiotic active against streptomycin resistant bacteria including tuberculosis organisms. *Science*, 109, 305.

WAKSMAN S.A. & LECHEVALIER H.A. (1962): The Actinomycetes, Vol.III. The William and Wilkins Co., Baltimore, p.9.

WALLACE E.G. (1970): History of the development of antibiotics. *Clinical Medicine*, 77, 10-17.

WARMER C.A., TOMPSETT R., MUSCHENHEIM C. & McDERMOT W. (1951): Absorption and excretion of viomycin in humans. *Proc.Soc.exp.Biol.Med.*, 76, 292.

WEBBER B.M. (1957): Respiratory arrest following intraperitoneal administration of neomycin. *Am.Med.Ass. Arch.Surg.*, 75, 174-176.

WELCH H., WRIGHT W.W., WEINSTEIN H.I. & STAFFA A.W. (1958): In vitro and pharmacological studies with kanamycin. *Ann.N.Y.Acad.Sci.*, 76, 66-80.

WELSCH M. (1937): De quelques propriétés du principe bactériolytique des actinomyces. *Compt. rend.Soc.biol.*, 126, 247-249.

WOLFROM M.L. & OLIN S.M. (1948): Abstract of papers 113th meeting Amer.Chem.Soc.April, p.59. Cited in "Streptomycin, nature and practical application. ed.Waksman S.A. Williams and Wilkins Co. 1949, p.60.

WOLFRAM M.L., OLIN S.M. & POLGLASE W.J. (1950):  
Synthesis of streptidine. *J.Am.Chem.Soc.*, 72,  
1724-1729.

ZAIJABOV V. (1961): Neurotropic action of isonicotinic acid and streptomycin. *Sb.Tr.Nauchnazzled Inst.Tuberk.*, 7, 85-95. Cited in *C.A.*, 62, 3302h  
(1965).

ZINTEL H.A., FLIPPIN H.P., NICHOLS A.C., WILEY M.M.  
& RHODES J.E. (1945): Studies on streptomycin  
in man I. Absorption distribution, excretion  
and toxicity. *Am.J.Med.Sci.*, 210, 421-430.