Hollander, W.F. Gen. 28:76- 1943 Abst. A possible case of deleted mutation in the pigeon.

♂♀ ♀ sex linked Almond a^{br} → mosaics of brown and a^{bl}.

Al · a^+ → mosaics ♀ black but never brown.

do. Al · — (hemizygous ♂♂).

Evidence that Al → a^+, etc. If so, mutation is deleted by the other allele. (rather than somatic loss or crossing over).

Sonneborn, T.M. do.: 90 Development and inheritance of serological characters in variety 1 of P. aurelia.

Stock P has antigen; 60 lacks it. Single dominant gene.

P × 60 → some homozygotes which retain antigen 4-8 fissions (cytoplasmic lag).

Aa × aa → slowly developing antigen detectable only after several fissions + increasing to standard level.

~~Anti-A kills most~~ of

Anti-60 kills most individuals, but some resistants arise. Lost within a few fissions unless continued exposure to serum. Some lines retain their resistance (275 gener.); others lose it more rapidly. Lost at endomixis or fertilization in 9 fissions! (Dauermodification!)

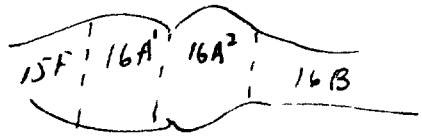
Note: Bar is dominant.

Sutton, E. Genetics 28: 97- 1943 Bar eye in D. melanogaster: a cytological analysis of some mutations and reverse mutations.

Summ: Hemizygous ♂, and Bar deficiency have no phenotypic effect.

The Bar effect is produced by interaction with other loci which may mutate..." The Bar effect may be destroyed by mutation of one of the two interacting loci, as well as by separation of these loci through chromosomal rearrangement.

Reversals:



a) deficiency of a duplication incl. 15F — 16A.

b) inv. $16A_1^1$ — 17A.
c) undetect. change
d) def. $16A^1A_2^2$
e def 16A.
f. inv - long from 4A to $16A_2^2$
g. " - $16A_7^1$ to C.

Similar effects in DoubleBar.

Oeshoor, J.L., Acta Path, Microbiol Scand, 22:523 (1945) Investigations of the permiability of yeast cells.

White
Woolley
Hutner

C+F.

Grob, D., J.G.P 29: 219 (1946) Proteolytic Enzymes I.

P.4.

Strong, L.C. XII. Yale JBM 18: 145-155 (1946)

The effects of selection toward resistance.

1. Meth induces ag. tumors in homozygotes; diverse in heterozyg; particularly in strains selected for resistance to local tumor formation. [illegible]

An increased mutation rate is also postulated.

Mice have strongly selected for resistance.

1. In one subline, no change [biotype - pure line?]

2. In 4 lines, a decrease, but accomp. by an incr mutation rate to susceptibility.

Owen, FV, J Agr Res 71:423 1945 Cytoplasmically inherited male sterility in sugar beets.

Ostergren G. Hereditas 30: 213-16 (1944) An efficient chemical for the induction of stickiness in chromosomes.

Allium roots 3da. 1 molar.

Turbidimetry

Hayes, W. JPB 57: 457-466 (1945) The effect of agar depth in the plate method for the assay of penicillin.

200 000/ml opt. For penicillin, agar depths less than 5-6 mm. give sharply increasing zone sizes of inhibition, varying ± concentration.

The assay value increases at agar depths considerably greater than the apparent radius of diffusion.

8.8 cm plates require 50 ml for 8 mm. agar, which is required for uniform results.

Lehmann, F E + H Weber, Verh. Schweiz. Naturf. Ges., 120: 181-2 1940.

Verschwinden embryonaler Zellkerne v. Tenifex nach Colchicinbehandlung.

6.20.74(1910) Method of counting

Smith, Sister MC, A.J. Med Tech
bacteria....

Beijerinck, M.W. Archives Néerlandaises des Sciences, 23: 367-72 (1889)

L'Antanographie ou la méthode de l'hydrodiffusion dans la gélatine appliquée aux recherches microbiologiques.

Add required supplement to the surface of an agar or gelatin pour plate culture requirements. e.g. yeast + phosphate (yeast is more resistant than most bugs to killing under such conditions). Also, double diffusion zones for recognizing giving "une teinte lenticulaire opaque du contour jaunâtre." Glucose + asparagin, etc. as C & N source. Inhibitors also easily demonstrable. Also suggests drying the plate.

Points out that bacterial cons. do not have to be known. Used large plates for multiple effects.

Furth, J. + M. L. Boon, AAAS Research Conference on Cancer, 1945, 129-138.

The time and site of origin of the leukemic cell.

Malignant cell determined by bioassay - intravenous adm. to recip.

1 cell needed for transmission.

1. Young leukemic mice do not harbor neoplastic lymphocytes.

2. Some neoplastic can be found before clinical leukemia.

3. Thymectomy reduces incidence leukemia. (ca 60 to 10%). Do. underfeeding. Splenectomy = effect. Does not influence transmissibility. May have a genetic effect in inhibiting tumor growth.

4. Underfeeding reduced incidence from 65 to 10%. Also interfere transmission. May have leukemic cells by bioassay = evidence of leukemia Rarely in bone marrow; probably not typical site.

5. Method leukemogenesis. a. X-Radiation mice recipients.
b. Lead + hybrids which do not develop spont.
Develop in 70-100 days. contain neoplastic a short time before leukemia develops.

Earle, WR, AAAS Cancer 1944.139.
A summary of certain data on the production
of malignancy in vitro

Dedal, ZJ HRK Busch. J Bact 51: 791-2 (1946) The biotin requirements of Neisseria sicca

only biotin required opt. .0001 µ/ml

Reyes-Teodoro, R. + M.N. Nicholson, J Bact 51:389s (1946)

Recovery of biotin from cultures of acetone, butyl alc. bacteria. Synth. medium.

75-80 % recovery. 15-20% in medium.

acid hydrolysis or papain-diastase are best methods.

Klieneberger Nobel J Hyg 44:99 1945

gbl Bakt I 135: 239 1940 (mixcultures)

JID 54:313.

~~Holdemeister~~ Z. ~~Bakt~~ ~~[illegible]~~ symbiosis

J Bact 30:301

Green, FE + FU Mylan JID 4/2:525-36 (1958).
4/2:545-

Tulsteen, HC + ML Snyder, J Bact 42: 653-64 (1941) The inhibition of the spreading growth of Proteus and other bacteria to permit the isolation of associated streptococci.

a) Fry's technique of pouring layered plate
1. Prevent spreading with a top layer

6% NaCl inhibits spreading but not growth markedly.
(probably cuts diffusion of water - as mid. by dyes)
(probably not a good idea

Hyde inhibits spreading at 10^{-4} but growth as well.

alcohol 5% inh. spreading but not growth.

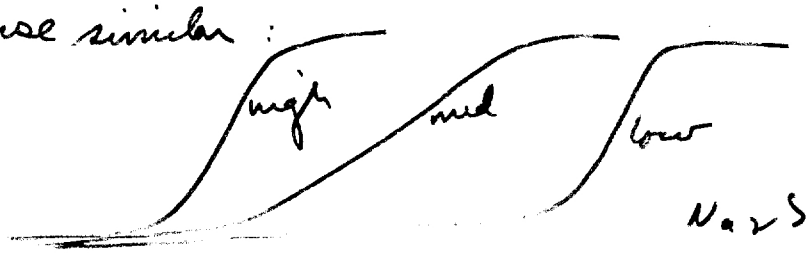
[Dettling has proteus phages.]

Fry - BJEP 15: 456-7 (1932)

Burrows, W. J.I.D. 54:135- 1939 The nutritive requirements of the Salmonellas.

Many strains require tryptophane. Casein treated. Tryptophane conc. does not affect rate, or final growth, but only lag. Replaceable by lysine in one strain. Tryptophane assay increased after growth.

Na_2S response similar:



N variations affected both rate + amount. Glucose was also none.
not lag.

NH_4SO_4
$NaCl$
KH_2PO_4.
glucose

Resp. rates ~~lower~~ higher ∴ low tryptophane. (selection?)

Demerec, M. CSH 9:145 (1941) Unstable genes in Drosophila.

see Demerec 1935.

Plough, HH. CSH. 9:127 (1941) Spontaneous mutability in Drosophila

Goldschmidt, R. Biol Zentr. 49: 437-48 (1929) Experimentelle Mutation und Problem der Entw. Parallelmodifikation. Vers. an Drosophila

By heat-treatment of larvae, phenotypic sooty which bred sooty were found. "simultaneous somatic + germinal mutation", "favored." !

Bluhm, A. Biol Zbl. 48: 641-8 (1928) Einige fragende Worte zum Mutationsbegriff. (Hanson has it)

see Bauer. —

Delbrück, M. Biol Rev. 21:30 - 1946. (Bacterial viruses or bacteriophages

Winge, O. CR Carlsberg 24:79-95 (1944) On segregation and mutation in yeast.

S. cerevisiae - only ½ spores survive. (lethal?)

S. unisporus - (single spore form) probably varying segregants