Burdette, W.J. and J.E. Carver. The University of Texas, M.D. Anderson Hospital and Tumor Institute, Houston, Texas. Tumors in Drosophila following treatment with oncogenic viruses.

The RNA Rous-sarcoma virus (Bryan high-titer strain: BH-RSV) was found to be associated with an increased incidence of melanotic tumors, mutations, and chromosomal aberrations in D. melanogaster (Burdette, W.J., 1969, Tumors, hormones, and viruses in Drosophila, Nat. Cancer Inst. Monogr. 31: 303-321; Burdette, W.J. and Yoon, J.S. 1967, Mutations, chromosomal aberrations, and tumors in insects treated with oncogenic virus, Science 155: 340-341). The results of these and similar studies in which the DNA virus: SV 40 (Simian virus: strain 40) and Rous associated virus (RAV-1) have been administered to two different melanogaster stocks ($sc^8 \cdot Y \cdot B^s/y^2$ w^i ct^6 f: "Multipurpose" and Oregon-R) in 1:1 and 1:50 dilutions are shown in the table below. Tumor frequencies significantly higher than controls were observed in all series except in the Oregon-R stock treated with SV 40 virus. Further, the tumorigenic effects of BH-RSV and SV 40 were found

Tumor incidence following treatment of pre-imaginal stages with oncogenic virus

Stock	Virus administered	Percent with tumors	Total number observed	P
MP	Control	2.3	2230	-
	BH-RSV, 1:1	5.2	852	<0.005
	SV-40, 1:1	8.5	1396	<0.005
	RAV-1, 1:1	4.2	1702	<0.005
	BH-RSV, 1:50	7.9	1846	<0.005
	SV-40, 1:50	7.8	742	<0.005
	RAV-1, 1:50	8.1	1530	<0.005
ORE-R	Control	0.3	1320	-
	BH-RSV, 1:1*	2.6	760	<0.005
	SV-40, 1:1*	0.9	1337	.05-.10
	BH-RSV, 1:50*	3.2	801	<0.005
	SV-40, 1:50*	1.0	314	.25-.5

*Yates' correction applied.

to be greater on the multipurpose than on the Oregon-R stock. The latter result suggests genetic differences in susceptibility to oncogenic viral agents among different strains of Drosophila. Comparison of 1:1 and 1:50 dilution treatments show higher frequencies of tumors at the 50-fold dilution for BH-RSV ($P<0.01$) and RAV-1 ($P<0.001$) in the M-P stock, and for BH-RSV in the Oregon-R stock ($P<0.001$). No significant difference between treatment concentrations was observed for SV 40 in either stock analyzed (MP: $P>0.5$) ORE-R: $P>0.8$, Yates' correction applied). Studies designed to elucidate the mechanisms of viral action in Drosophila are being continued.

Baimai, V. Mahidol University, Bangkok, Thailand. D. montium from Mt. Maquiling, Luzon, Philippines.

Karyotype variation in D. montium has recently been discussed (Baimai, 1969).

In February, 1969, an extensive sample of living Drosophilas was obtained from Mt. Maquiling, Luzon, Philippines (Mather 1970). A culture of D. montium was established from the collection which turned out to have a metaphase plate Type III similar to those from Tawau and Sandakan, Sabah. This strain proved to be cross-fertile with strains from Madang, (New Guinea) Kota Kinabalu (Sabah), and Tawau (Sabah).

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References: Baimai, V. 1969. Karyotype variation in D. montium. DIS 44: 115. Mather, W.B. 1970. The Genus Drosophila at Mt. Maquiling, Luzon, Philippines. DIS 45: 111.