

A.

1 MRPNLFSQAA... SLLTYSRNGKLLTRGSSP... ATS Enigma
 1 M...S...C... GLF... AAR ACAD-9
 1 ...TSSWVI GNVGTLQTLGPKGDLPNNF ETMWRHTI QSTVY... AGHASLCRCQI ATH C97481

33 SLDLSDQHQAATTEGGRAESVEESPEDQRKLPTREP... AKNEF Q VVDKELLAKPEV PR DEMAQLE Enigma
 36 AC... RGLVWBTANRDRTRISCPVRFAKELF QKIK KKEVF PFP EV SODELNEI Y ACAD-9
 54 SP... KLGAESNRSKEXASENBSF... MAAI FPGSLVSSQVFPYDPV TAEQKELTY C97481

69 NS... P LKNY... VEPRETEETE... I... RQLSLYBLN VSTDY ESKY QWMSASL MASEPD S TD N Enigma
 69 QFSPVVKTFTEEVDSR I DZQVTF PLSKLS LAFGLQVE ESKGGLS SNTV S RESEN S MGS ACAD-9
 105 SLIDPDRR FSDVNR ARNABNSK I DYSTALWELP C2VPPSF QGLD NNTCQSGRCAL GVNDLG C97481

159 VT GLQTHR2VVDLILKEV... GTP DQRTL DLTATLILG... TEAI YEI SPPEEDYNTTALEI PEY Enigma
 138 LITTLAHDAIG LKQI LAGT DEOKAYKLPLKASHEH AARCLTEP .. ASGSDAAS ISRATLSEK ACAD-9
 175 LGI TII QAHDSO... FKGII LYT DEPEQKE KYLKPVA AEGVVA AAFALTEP .. SSGSDAOS ISRCAVKSIADG C97481

222 QKMDLNGE I STVU CTPGRRQI L VVDTD QP NV P VULGRGTH I VDS QDE GVSL DEKHATF QCRKAEL Enigma
 203 KHV LNGSMVMT I NGS I DZQVTF EVDV S D VVADKTA VAF VERDQGVTNH PEKAKAIS PNST ACAD-9
 240 KHW LNGSM MMS 169 AS MTFVADTEQVDPKT S KDKVTAFI VERSGVTNH PEKAKAIS PNST C97481

291 RRVHFEGVKA GEDQWVQI PHDGRNRYSEQLVRS RLSGLS I QSLAKKL NELAQATV ITT DQV QV DQLE Enigma
 271 CGEVHFRPTK V PWN I GEVDDGFKVAMNI LNSGRFSMSGS VAPL ARLI EMTA EYACTRDFKIRSEFG ACAD-9
 300 AEVYFEDPKI P ENVL G XEDGF KVAMNI LNSGRF QMGTLS STMKK LEDA TBTAN IRV 2DQKUHQ C97481

361 ITRI HMSRAMCSVYAMESM I LTAGL DEFRAGQVT LESNTI Y I LRDVYIA ASON QVVPDKSLL SGE Enigma
 341 LI DEKF I LQAKA Y DESEN I LTAGL DOP S PDCS I AA MVV Y SE AADCVSEAL QI L 69 CTRTQ ACAD-9
 379 SIEGEK I ADNI LQYAS ESMAFTI SQMHD SSK3YTHEAAPI YASSE AMV VCD EA QI L 69 QMV MVN C97481

431 TTE GLRDAQD I TGDGESLDL QF I ALTGLDQHAGDMNT OV I KSRNP I FNP G HIEKPS DNNNSI D NPK Enigma
 411 PYER LRDR RIL FIFEGTNE LRMYI ALTGLOHAGRI LITRIRI HELI QAKVST VMD TV RR RDRS - ORT ACAD-9
 448 GLERVLRD RIF FIFEGTNDL LS I FIALTG QYAGSHK ELQSAF KNPSA I G LIT KEASRR A - AST C97481

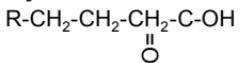
500 TKMD... L...I... VPHPLEAACD C I SVARLQMAVE L MTKHNAVE D SEMDPLA VEVGTL I YAMV Enigma
 479 VDQG... L...I... VPHPLEAACD C I VENTYOTI DTTFLLR D L D QV D VEDLVV YAP I L 133 YAMV ACAD-9
 514 VDQGTD L...G... H... VVGEI LPYX I FAHC I DLS QSV ELLERYNN VNEQ I LTRLAIAADY I YAMV C97481

564 SVA BRASRSYCD I QLP A DHELLTATA I DSBD RVRVRT I ST EI Y 69 E V N N N N V RL SKD VAK SKD YFA Enigma
 546 VLBRASRS R I QGLRNHDHEV L I NTR D V EAYLONLF S S Q L D Y APE I NLDED KKVS D Q LEKRAY I C ACAD-9
 581 TQSRSSRRAVNLN I PTQDQENMTMKALTI DA SDRV KNL 2 AATSS HRSLS YEK ISTI ARTT LENO SVTT C97481

632 VHPLT I F Enigma
 614 AHPL DTC ACAD-9
 649 TG I DQY C97481

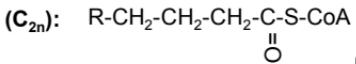
B.

fatty acid



acyl-CoA synthetase

“activated” fatty acid-CoA



bubblegum

cytosol

mitochondrion

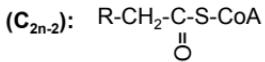
1. Dehydration acyl-CoA dehydrogenases:

CG7461, Enigma (?)
and 6 more predicted genes

2. Hydration

3. Oxidation
scully

4. Thiolysis



Acetyl-CoA