ARGININE AND PROLINE METABOLISM N2-Succinyl-N2-Succinyl-L-glutamate 5-semialdehyde N2-Succinyl-L-omithine glutamate Glutamate Alanine, aspartate and glutamate metabolism K00840 O Guanidino-🖣 acetate-P P9301_05571 K01484 proB 2.7.3.1 Creatine Creatine-P — spontaneous — ► †Creatinine Guanidino 🔥 N2-Succinyl-K00542 K00933 K00294.. K00294.. acetate Creatine pathway 4-Oxoproline ் பே-Glutamyl-P Peptide K08688 codA D-Nopaline D-Octopine Urea C00012 0 K00613 **~**0° N-Carbamovl-Arginine biosynthesis K00673 sarcosine 9301_0390 1.1.1.104 Sarcosine K01473... K00318 1-Pyrroline-3-hydroxy-5-carboxylate K00296 1.5.1.11 N-Methyl-L-Glutamate 5-semialdehyde K13821 hydantoin L-erythro-4-Hydroxy-a glutamate Omithine Arginine K01476 K00819 proC K00472 K00294.. 1-Pyrroline-5-carboxylate 4-Hydroxy-proline Proline K22842 K01581 K13240.. K00491 speA N-Carbamoyl-N-Acetylglutamate Semialdehyde Arginine biosynthesis putrescine K00934 K12658 K10536 K12251 K00294.. Nω-Hydroxy_C 4-Hydroxyglutamate semialdehyde K19743 arginine aspC 2-Oxo-5-aminovalerate ○◆ K19742 K01777 ာ္မွာ cis-4-Hydroxy-K00824 2.6.1.23 speB K13240.. K00491 Agmatine D-proline P9301_18941 Linatine 0 K18384... 0 **FO**: L-Arginine-P p-Coumaroyl-CoA K17851 trans-3-Hydroxy-D-Proline o 2-Oxo-4-hydroxy-1-Pymoline-0 (R)-4-Hydroxy-2-oxoglutarate proline Nitric oxide 2-cárboxylate 5-aminovalerate i K21672 K10793... K14329 ---**O4** K14329 K12252 1.4.3.25 K21624... p-Coumaroylp-Coumaroylcys-3-Hydroxy-→o Pyrrole-2-carboxylate K18123 ptrescine agmatine proline 5-Amino-1-Pyrroline- 2-caro 4-hydroxy-2-carboxylate Lysine degradation pentanoate **₽**©2Pyruvate 2-Oxoarginine Feruloyl-CoA K14329 K14329 Tropane, piperidine and pyridine alkaloid biosynthesis K21062 Cysteine and methionine Feruloyl-Feruloylmetabolism Glyoxylate 🍳 agmatine ptrescine Putrescine K12253 1.13.12.1 Citrate cycle • 2,5-Dioxopentanoate L-Aspartate-4-semialdehyde K09470 K00657 3.5.1.62 S-Adenosyl-Glycine Glycine, serine and Ascorbate and aldarate ~methionine -C>-C)-4-Guanidino-4-Guanidino- 🖒 metabolism y-L-Glutamyl-N-Acetylmetabolism threonine metabolism butanamide butanal Oputrescine putrescine K03343 2.6.1.29 Pentose and glucuronate 1,3-Diamino-K00274 propane K13746 K13746 K17839... interconversions Glyoxylate and dicarbóxylate metabolism K11182 Carboxy-spermidine Carboxy-norspermidine N4-Acetyl- Φ S-Adenosyl-்ற் y-aminometioninamine butyraldehyde aminobufanal K09251 K12256 K13747 K13747 K09472 K00128... K12254 K01426 speE , N4-Aceyly-Glutamyl-Norspermidine 👌 amino-butanoate o y-amino-butyrate 4-Amino-K13366 Spermine speE 'butanal β-Alanine metabolism K00316 Spermidine K00802 K09473 3.5.1.63 K00128... K12259... Polyamine K00137 K12254 rainway K17839... Glutathione K14755 metabolism 4-Amino-butanoate ADH pathway ADC pathway K08660 K12255 ►O L-Homocarnosine K05604 4-Guanidino-Alanine, aspartate and glutamate metabolism butanoate K00613 Butanoate metabolism 00330 7/18/18 (c) Kanehisa Laboratories