This is a second answer to the question "Is oscillation functional?", right?

Could you reformulate without referring to nodes in this diagram?
eg: "Oscillations in the brain are functional for reasons that are independent of oscillations in the brain."??

Is this a AND or a OR?
The 2 statements connected about drug and optogenetic induction...
... is it enough that one of them be true for the conclusion to hold?
... must they both be true?
If it is wierd of me to ask this, could you say why?

Which answer?
the yes answer at the bottom left corner?

Is oscillation in the brain functional?

∧

Functional := of or having a specific purpose; implying causality

∧

Oscillation: = repetitive variation of a measure around a central value

Oscillation in the brain :=

Theta brain waves in a region (e.g, hippocampus, neocortex): = field potential recorded extracellularly within the brain tissue in vivo or in slice

Theta brain waves and resonance are both a kind of brain oscillation?

A neuron's intrinsic resonance :=

Functional: = Relating to the ways in which something works; not necessarily causal

∨

.....

Optogenetic induction of rhythm causes behavioral changes

these are statements no?

Drug induction of oscillations induced epilepsy

The reasons for the answer (green patches) are not about the questions (i.e.brain oscillations)

which questions?

Inference and induction refer to the same thing here, right?

Optogenetics interference: = rhythmic activation or inhibiton of neurons using optogenetic tools

Drug interference: = change kinetics of certain ion condutance

Change of activities or excitability of the neurons

this isn't a statement right? just a term/object

Could you explain this relation between resonance and spike timing?
(shortly, eg in 1 sentence)

This is a statement
Change of neuronal properties (e.g. probability of action potential, strength of synaptic plasticity) is related with oscillation properties (e.g. amplitude, frequency)

What is "this" exactly?
this:= the functionality of oscillations in the brain?
this:= the fact that oscillations in the brain are functional?
...?

Yes. But this merely reflects relation between neuron and brain oscillations

Is this another statement?

Could you explain the meaning of these two connections?
the relation between spike timing and synchronization across neurons on 1 hand
and the fact that change of neuronal properties relates to oscillation properties on the other hand?

Spike timing := A neuron has a preferred phase of firing during theta waves

.....

Synchronization across neurons: = the correlation of spike timing of connected neuron pairs increases

Are these statements or definitions?

Between any pair of neurons exist direct monsynaptic connections or indirect connectivity via other neurons or parallel at the downstream of another neuron

I find interesting that you chose to use this arc here. I think either the same meaning should be expressed in terms of the gray content being the reasons of the green content being true. Or else the MMM should be refined so it can account for this kind of situation = 1 statement motivating a definition?

Perhaps could you detail the relation you have in mind between the 2 endpoints of this arrow?