

Re: PIP you may like this study

Source: <http://sci.tech--archive.net/Archive/sci.bio.evolution/2005-10/msg00478.html>

- *From:* "Perplexed in Peoria" <jimmenegay@xxxxxxxxxxxxxxxx>
 - *Date:* Sun, 16 Oct 2005 02:42:33 -0400 (EDT)
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<TomHendricks474@xxxxxx> wrote in message [news:disp5h\\$2nje\\$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:disp5h$2nje$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)
> Semipermeable lipid bilayers exhibit diastereoselectivity favoring ribose.
> ... The
> enhanced permeability conferred by the unique conformational
> preferences of ribose would have allowed faster assimilation
> of ribose by primitive cells as they passively absorbed materials
> from the environment. The kinetic advantage of ribose over the
> other aldopentoses in crossing membranes may therefore have
> been one factor that facilitated the emergence of the RNA world.
>
> Perhaps ribose would be the sugar of choice for the RNA world
> because it best crossed the membrane?

No, Tom. I hate that study. I believe in an autotrophic origin.
I don't take any sugar from the environment, and if I build a
sugar, I don't want it to cross a membrane.

> IF so it would suggest that membrane and the choice of sugar may
> have happened around the same time.
>
> A friend added that another study suggests that ribose with boron
> is more stable in heat than the other sugars.

Yes, that is the Steve Benner study that was briefly discussed here
a few months ago. I like this idea a little better than Benner's
if I had to choose between them. But neither idea solves the chirality
problem. That is why I doubt that I will retreat from autotrophy
for ribose and nucleotides even if I were forced to retreat from
autotrophy for lipids. You can, after all, build a membrane from
achiral or racemic units (if you can find them).

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- *References:*
 - ◆ [*PIP you may like this study*](#)

Re: PIP you may like this study

◇ *From:* TomHendricks474

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