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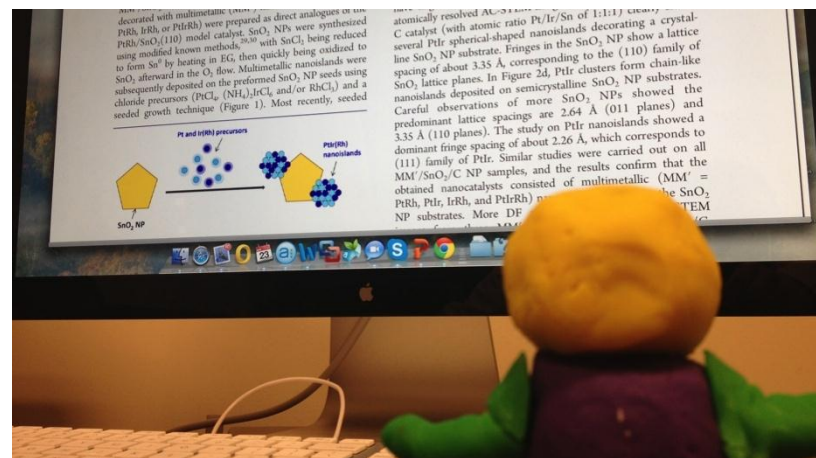
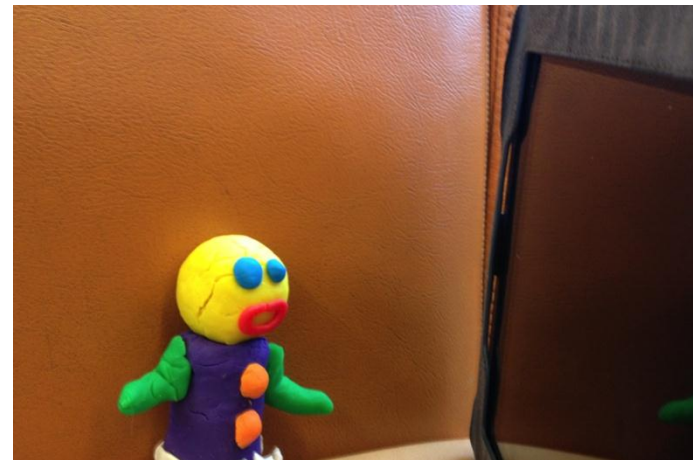
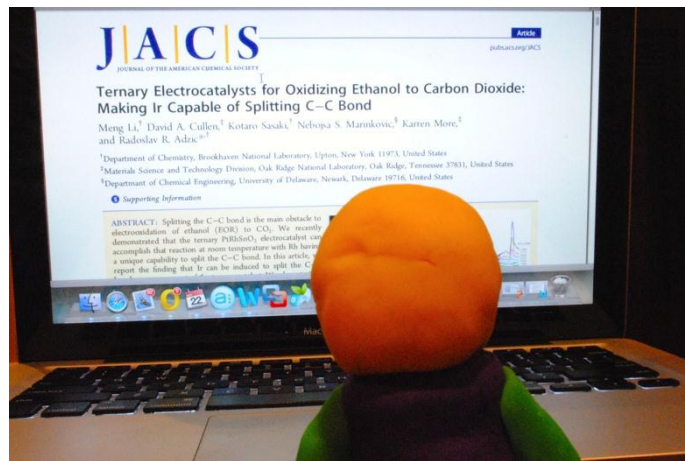
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Aneesh Chandran , Debostuti Ghoshdastidar , and Sanjib Senapati

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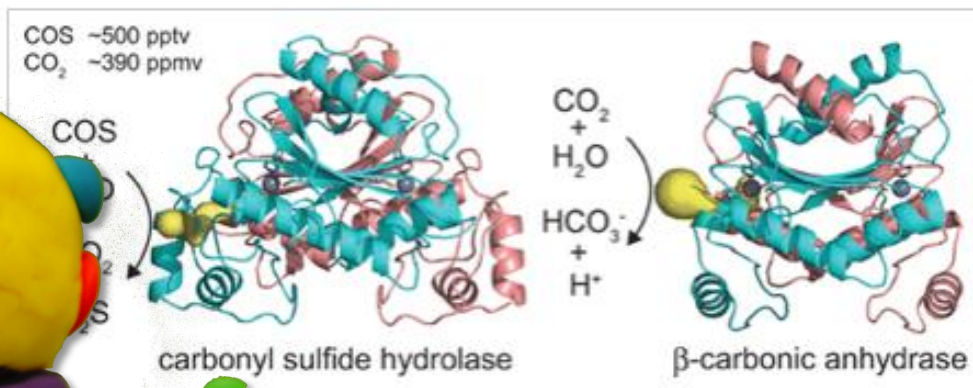


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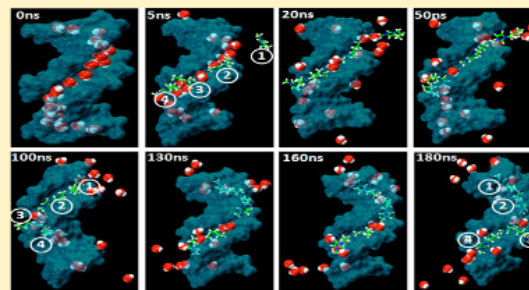
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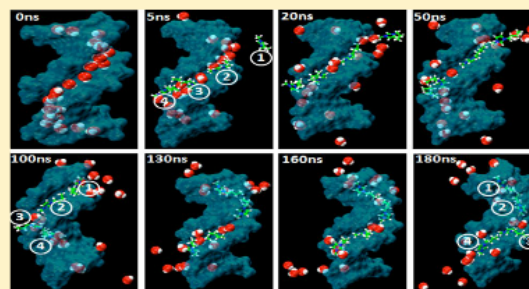
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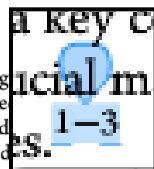


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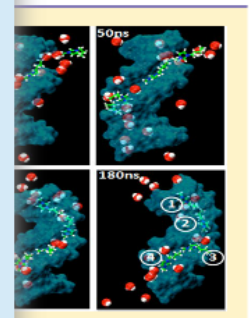
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Kutzler, Michele A.; Weiner, David B.

*Nature Reviews Genetics* (2008), 9(10), 776-788 CODEN: NRGAA; ISSN: 1471-0056. English.

A review. In the past 16 years, there has been much excitement in the area of DNA vaccine development for a range of medical conditions. The recent licensure of DNA vaccines for veterinary use bodes well for applications in humans, in which progress has been slower. Since the discovery, over a decade and a half ago, that genetically engineered DNA can be delivered in vaccine form and elicit an immune response, there has been much progress in understanding the basic biol. of this platform. A large amt. of data has been generated in preclin. model systems, and more sustained cellular responses and more consistent antibody responses are being obsd. in the clinic. Four DNA vaccine products have recently been approved, all in the area of veterinary medicine. These results suggest a productive future for this technol. as more optimized constructs, better trial designs and improved platforms are being brought into the clinic.

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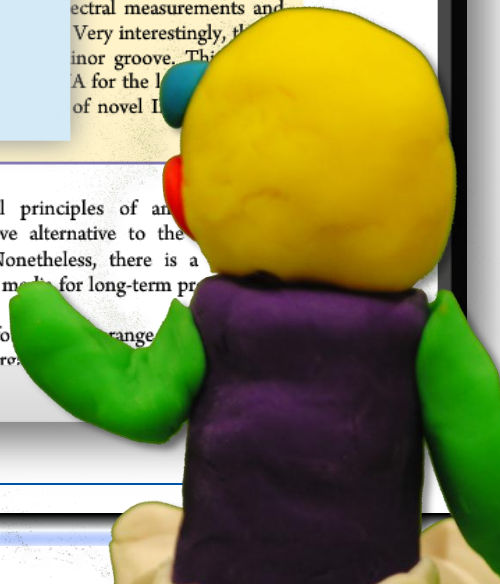


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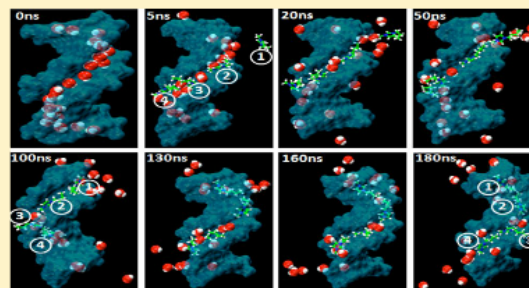
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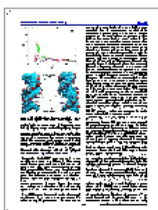
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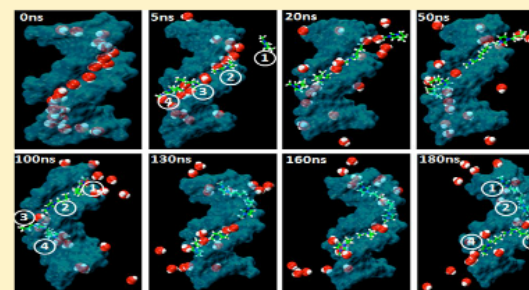
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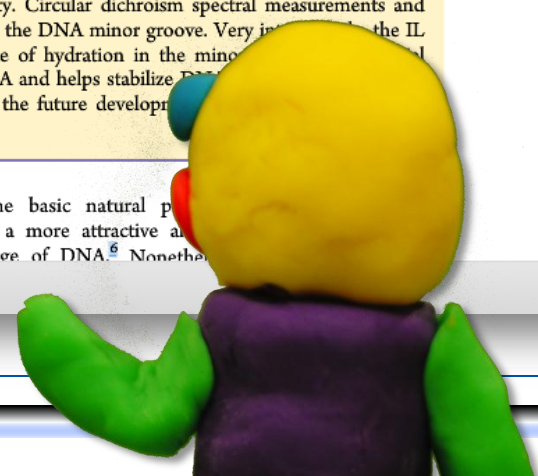


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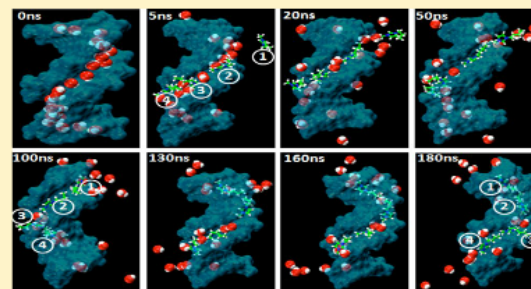
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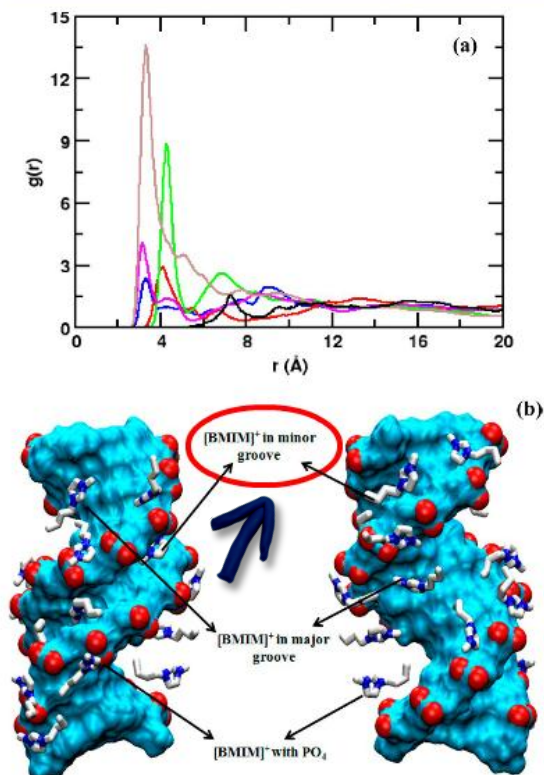


Figure 1. (a) Radial distribution functions (RDFs) of IL ions in different DNA regions. Color scheme: cation–phosphate, brown; cation–major groove, magenta; cation–minor groove, blue; anion–phosphate, green; anion–major groove, red; anion–minor groove, black. The following sites were considered for calculating the RDFs: center-of-mass (COM) of the imidazolium ring for the cation, Cl<sup>−</sup> for the anion. P for the phosphate group, electronegative sites N3 and O2.

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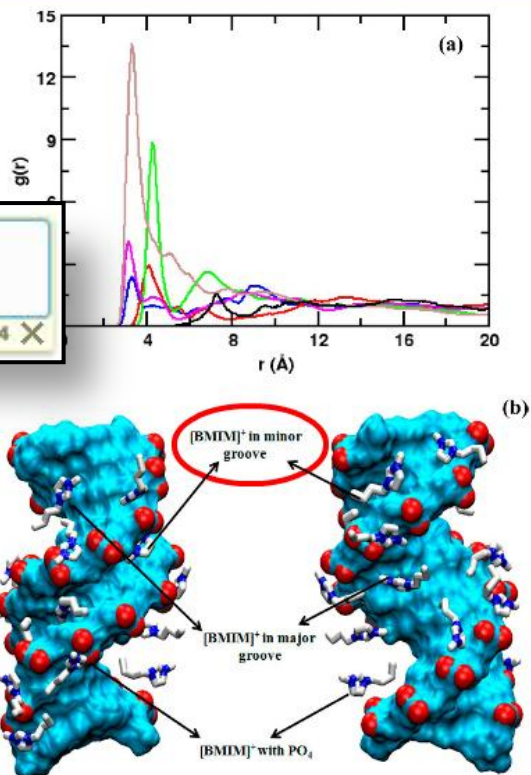


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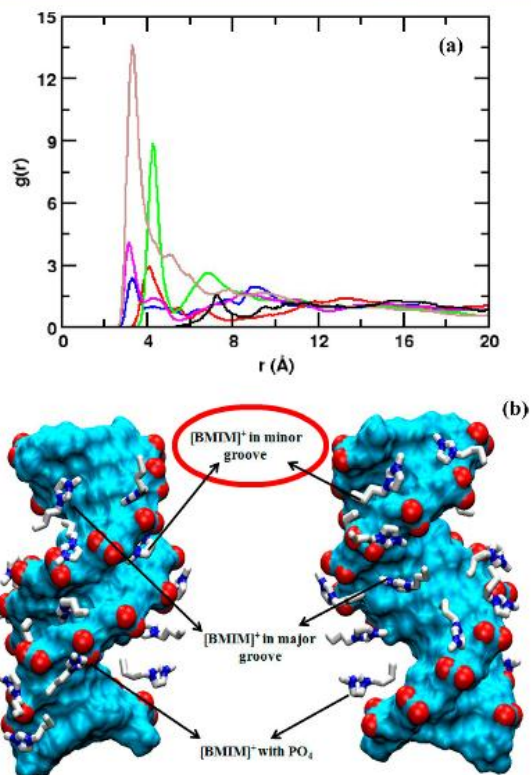


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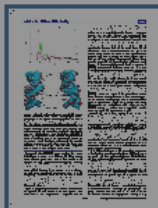
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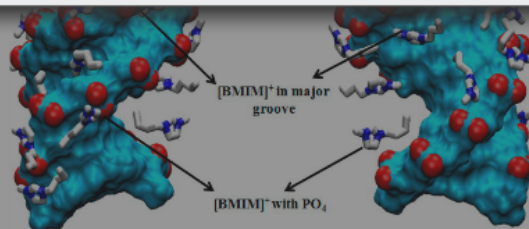
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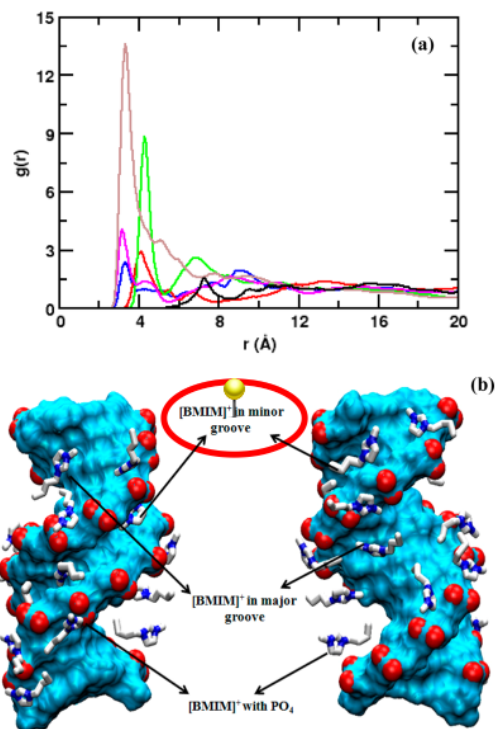
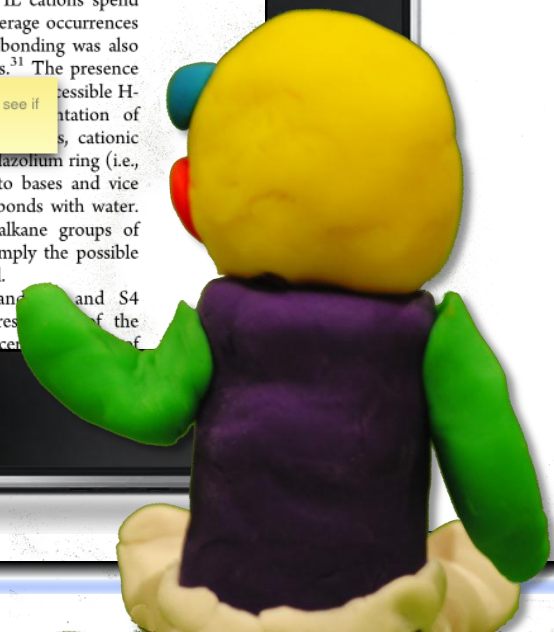


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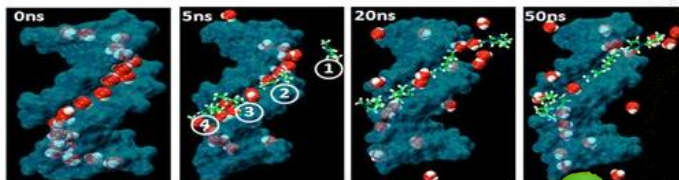
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