

end of the year — by which time the national and international strategies on climate change may well have been decided.

The concern over respect comes from the scope of the studies. Congress specifically asked the NAS committee — which includes top scientists, corporate leaders, environmentalists and industry representatives — to “make recommendations regarding what steps must be taken and what strategies must be adopted in response to global climate change, including the science and technology challenges thereof”.

On the face of it, this sounds as though Congress was asking the NAS for specific policy choices — a request that could lead the academy into dangerous territory. Although it has recommended specific policies in the past, the academy runs the risk of politicizing itself and weakening its standing should it advocate policies such as the stabilization of carbon dioxide at a particular atmospheric concentration, or the adoption of a US cap-and-trade programme. These are not scientific decisions: they depend on how much society is willing to spend on curbing CO<sub>2</sub> emissions versus how much it is willing to live with the results — a fundamentally political problem.

Leaders of the NAS study say that they are not overly concerned. On timing, they point out that any bill moving through Congress this year will be only the first of many. And the same could be said of any treaty that emerges from Copenhagen. NAS studies are meant to provide sound and comprehensive advice that could inform policies over the long term. That laudable goal should not stop the academy from providing Congress with more immediate guidance, should Congress ask for it. For example, the academy could produce an interim report within a few months summarizing its most important findings so far.

As for politicization, the NAS can avoid the pitfalls by its usual practice of outlining the pluses and minuses of different policy options without choosing specific ones. In particular, the committee should examine both carbon taxes and a cap-and-trade programme, even though politicians avoid talking about the former and have lined up behind the latter. If the NAS eschews politics, as it should, then it should have a much greater impact than any advocate ever could, simply by providing a trusted and dispassionate analysis of each strategy's relative merits. ■

## Welcome, *Nature Chemistry*

Chemistry is not only a core scientific discipline, it is also of key relevance to others. Many research breakthroughs in physics and the development of sophisticated drug therapies would not have happened without using the principles and methods of chemistry. And our understanding of biology and of our environment would be limited indeed if it were not for the vital contributions from this branch of science.

Such issues persist: it is essential for chemistry to develop new tools, materials and processes to help us take on the problems and challenges of the twenty-first century. The creativity, ingenuity and perseverance of chemists will be crucial in successfully meeting the need for efficient and affordable medicines, for alternative energy and fuel sources, or for smart materials to improve modern technologies.

Happily, the chemistry research community is delivering. Examples range from ever more sophisticated and efficient syntheses for formidably complex organic molecules of interest to biology and medicine, to rationally designed catalysts that could render industrial processes greener and more efficient. A plethora of materials are being designed at the molecular level to optimize their function, whether for capturing carbon dioxide, harnessing sunlight to generate useful chemicals or energy, or delivering and releasing a drug at just the right place in the body.

Meanwhile, an ever-growing array of chemistry-based tools is enabling researchers to probe, at the atomic level and on the timescale of molecular vibrations, the structure and properties of molecules and the processes that involve them. These technical developments are all the more rich and exciting because theorists have delivered the computational and simulation capabilities that are needed to translate

sophisticated data into detailed microscopic pictures of molecular interactions, properties and processes.

With all that in mind, *Nature's* publishers are this month launching *Nature Chemistry*: the fifteenth *Nature* research journal. (The first in the series, *Nature Genetics*, was launched in 1992.)

As with other *Nature* research journals, the editors of *Nature Chemistry* aim to present its readers with stimulating science as well as informative commentaries and debates. But in doing so, they will also make use of the Internet to publish scientific information in ways that conventional paper journals cannot. One example is the linking of research articles to pages containing information about the compounds being discussed, including interactive three-dimensional models of the chemical structures. Another is the use of pop-up windows to display chemical structures when the cursor hovers over a compound number in the main text of an article.

The journal will also adopt compound identifiers that, by enabling online searching for chemicals, aim to provide global and efficient access to chemical information and assist communication between chemists. These facilities will be adopted by *Nature* and other journals in the stable in due course.

Of course, *Nature's* own ambition is to continue publishing papers that have the deepest or broadest impact on chemistry, or that have particularly exciting application possibilities. Judging by past experience in other disciplines, the new journal will indirectly help to strengthen the impact and range of *Nature's* own papers in the field. And *Nature*, in turn, will make use of its media expertise to provide exposure to exciting chemistry published in both journals.

We invite readers to take a look at the first issue of *Nature Chemistry* at [www.nature.com/naturechemistry](http://www.nature.com/naturechemistry) and enjoy the read. ■

***Nature Chemistry* will make use of the Internet to publish scientific information in ways that conventional paper journals cannot.**