The BBC has upheld complaints against a controversial Panorama investigation into wi-fi health concerns, saying the programme had given a "misleading impression" of the state of scientific opinion on the issue.

Two viewers complained that the programme, Wi-fi: A Warning Signal, which aired on BBC1 in May, had given an unbalanced impression of the state of scientific opinion and had wrongly suggested that wi-fi installations give off a higher level of radiation than mobile phone masts.

They also complained that an experiment designed to test whether certain people were hypersensitive to such radiation had been misleadingly presented.

Professor Michael Repacholi, a scientist who had appeared on the programme, also complained that the scientific issues had been presented in an unbalanced way and that the treatment of his own contribution had been unfair.

The BBC said the programme reflected concerns about wi-fi expressed by Sir William Stewart, chairman of the Health Protection Agency, and that it was legitimate to focus on questions raised by an eminent scientist with responsibility for public health issues.

However, the corporation's editorial complaints unit (ECU) today criticised the programme for not having adequate balance, saying it had included only one contributor who disagreed with Stewart, compared with three scientists and a number of other speakers who seconded his concerns.

"This gave a misleading impression of the state of scientific opinion on the issue," the ECU report said.

"In addition, Prof Repacholi's contribution was presented in a context which suggested to viewers that his scientific independence was in question, whereas the other scientists were presented uncritically."

"This reinforced the misleading impression, and was unfair to Prof Repacholi."
However, the report backed the programme's radiation experiment, saying it had made it clear that its measurements of wi-fi and mobile phone mast radiation were taken at points where schoolchildren were likely to be exposed to signals.

The ECU said Panorama had also correctly presented the results of an experiment on electro-sensitivity as inconclusive.

In response, the BBC said the commissioning editor for TV current affairs had discussed the findings and the need to reflect the weight of scientific opinion effectively with the Panorama team.

It said the programme was also planning a special session with the production team to explore issues of balance and fair dealing with contributors in relation to scientific and medical topics.

The Panorama wi-fi report by Paul Kenyon was widely questioned after it was broadcast, not least by the BBC's own science correspondent, David Gregory, and the Guardian's Bad Science column.

Kenyon's investigation was just one of several Panorama programmes that have been criticised this year, including an edition in which John Sweeney losing his cool and ranting at a spokesman for scientology, and an investigation that claimed Pakistan cricket coach Bob Woolmer had been murdered.

The ECU also today finally published the findings of its investigation into a BBC2 documentary about the use of HIV drugs on children in New York.

MediaGuardian.co.uk revealed last month that the ECU would criticise the Guinea Pig Kids documentary for giving undue weight to an expert witness who was a leading advocate of the proposition that HIV was unconnected to Aids.

Today the ECU said the programme, which aired in November 2004, also gave the false impression that parents or carers who objected to their children being placed in drug trials risked losing custody of their children.

The BBC said that executives were now addressing the issues arising from the ruling for the commissioning and supervision of similar independent productions.

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