A key to apply cutting-edge medical breakthroughs relating them to Rabbinic texts in halakhah (Jewish law) is to employ analogies. For example in the medieval ages it was thought that the sound of a wood chopper chopping wood, or administering small doses of salt on the tongue of a terminally ill patient, kept their soul in the world longer. Thus the Shulchan Arukh and Talmudic case law discusses the permissibility or impermissibility of asking the wood chopper to stop chopping or the physicians to refrain from the administering of the salt? Likewise the question of permissibility of impermissibility of disconnecting a heart and lung machine of a patient who is “brain dead” but whose heart and subsequent respiration are being sustained by the machines is considered from a number of rabbinic texts, one of which is Oralot involving the phenomena of a chicken whose head is chopped off but runs around i.e. no brain activity but is mobile. For genetic questions such as cloning one must know that a halakhic category to apply to this recent phenomena is grafting of trees which was known in antiquity, or Yakov breeding monochrome and same colored sheep, or the category of forbidden mixtures-kilyaim. Many of the library guides relating to medicine, science and torah resources have arisen out of these questions, see:

http://libguides.tourolib.org/jewishethics
http://libguides.tourolib.org/codification
http://libguides.tourolib.org/jewisharchives
http://libguides.tourolib.org/jewsmedicine

http://libguides.tourolib.org/mathphilosophy

http://libguides.tourolib.org/humanisticmedicine
http://libguides.tourolib.org/netiquette
http://libguides.tourolib.org/philosophyofscience

http://libguides.tourolib.org/scienceandtorah

A question arises in Jewish medical ethics “Is a patient allowed to order that her pacemaker be removed even if the physicians know that such a request may eventually lead to prognosis of quicker death?” Relevant articles were found in Techumim, Journal of Halakhah and Contemporary Society, Tradition (by Jonathan Rosman), Minchat Hinukh, Torat HaRefuah by Rabbi Shlomo Goren; Torah Shelemah by Rav Kasher, Sefer Nishmat Avraham; A cutting edge recent release (within a month of publication only in Eretz Yisrael) of a teshuva by Rabbi Asher Weiss, and a primary text of an unpublished letter from a posek (Rabbical judge) to a director of a geriatric old age home with a patient who wanted her pacemaker out (see: http://libguides.tourolib.org/content.php?pid=504240&sid=4154266); and as is usual Hebrew key phrase searches where done in Bar Ilan, Otzar hahokmah, Hebrewbooks.org, Asplakaria (http://www.aspaklaria.info/), and Hebrew interface of RAMBI with medical terminology;
Response to such questions at the intersection of halakhah and medicine involves identifying Rabbinic medical principles that serve as “access points” for medical praxis such as: (1) lo ta’amod al dam re’ehkha (don’t stand idly by the blood of a neighbor), (b) “terminally ill patient close to death” (goses), (c) rapeh yirapeh (you shall surely heal), etc.

One must also know medical terminology in Hebrew to search the sheolot ve-teshuvot in Bar Ilan like the words for: (1) “euthanasia” (hitat hesed), (2) organ donation (terumat ivreim), (3) pacemaker (kotsav-lev), (3) operation (tipul, piulah, nituach), (4) significant medical risk (sechunah nefesh), (5) healer (ropeh), (6) medicine (terufah), (7) arthritis (DALEKET PRAKIM), (8) antibodies (NOGDANIM), (9) brain (MO'ACH), (10) genetic (TORASHTI) and genetic engineering (hanidasah genetit), (11) pulse (DOFEK), (12) thermometer (MADCHOM), (13) transplant (HASHTALA), (14) swelling (N'FICHUT), (15) diabetes (SUKERET), (16) calcification (HIDSTAYDUT), (17) coma (TARDEMA), (18) cloning (shichpul), etc.

Gathering sources from Rabbinic texts is an exciting, rewarding and intellectually challenging endeavor that is not only fascinating and mind expanding (mogen gedolot) but hopefully benefits the community making cutting edge scientific discoveries relevant to timeless halakhah, but also for the furtherance of academic research, being of service to humanity and the advance of science.