**AIDS InfoNet** **www.aidsinfonet.org** **Fact Sheet Number 402**

# DRUG NAMES AND MANUFACTURERS

*None of these drugs can kill the HIV virus, but each class slows down the multiplication of the virus (replication) in a particular way.*

**1. Reverse transcriptase inhibitors ("Nukes"): The first anti-HIV drugs. They block reverse transcription (the creation of viral DNA from RNA) by providing "decoy" building blocks that interrupt the process. Most are nucleoside analogs; tenofovir is a nucleotide analog.**

| Year approved* | Generic Name | Trade Name | Also known as: | Manufacturer |
|---|---|---|---|---|
| 1987 | Zidovudine | Retrovir® | AZT, ZDV | GlaxoSmithKline |
| 1991 | Didanosine | Videx® | ddI | Bristol-Myers Squibb, Barr Laboratories (generic) |
| 1992 | Zalcitabine, Hivid® (ddC, dideoxycytidine) by Roche: Manufacture discontinued in 2006 | | | |
| 1994 | Stavudine | Zerit® | d4T | Bristol-Myers Squibb |
| 1995 | Lamivudine | Epivir® | 3TC | GlaxoSmithKline |
| 1997 | Zidovudine/Lamivudine | Combivir® | Combines AZT & 3TC | GlaxoSmithKline |
| 1998 | Abacavir | Ziagen® | 1592U89 | GlaxoSmithKline |
| 2000 | Zidovudine/Lamivudine/Abacavir | Trizivir® | Combines AZT, 3TC, Abacavir | GlaxoSmithKline |
| 2001 | Tenofovir | Viread® | TDF, bis-poc PMPA | Gilead Sciences |
| 2003 | Emtricitabine | Emtriva™ | FTC | Gilead Sciences |
| 2004 | Abacavir/Lamivudine | Epzicom™ | Combines Ziagen and 3TC | GlaxoSmithKline |
| 2004 | Emtricitabine/Tenofovir | Truvada™ | Combines Emtriva and Viread | Gilead Sciences |
| Other nukes in human trials: Elvucitabine (ACH-126,443, beta-L-Fd4C) by Achillion Pharmaceuticals, MIV-210 (FLG) by GlaxoSmithKline and Medivir, Racivir by Pharmasset Inc. and SPD754 by Shire Pharmaceuticals. | | | | |

**2. Non-nucleoside reverse transcriptase inhibitors: these also interrupt reverse transcription, by binding to the reverse transcriptase enzyme and restricting its activity.**

| | | | | |
|---|---|---|---|---|
| 1996 | Nevirapine | Viramune® | NVP, BI-RG-587 | Boehringer Ingelheim |
| 1997 | Delavirdine | Rescriptor® | DLV | Pfizer/Agouron |
| 1998 | Efavirenz | Sustiva® | EFV, DMP-266 | Bristol-Myers Squibb |
| Other NNRTI's in human trials: +/-Calanolide A by Sarawak MediChem Pharmaceuticals, GW5634 by GlaxoSmithKline, MIV-150 by Medivir, and Etravirine (TMC125) and TMC128 by Tibotec. | | | | |

**2a. Combination medication: includes a non-nucleoside reverse transcriptase inhibitor and two nucleoside reverse transcriptase inhibitors.**

| | | | | |
|---|---|---|---|---|
| 2006 | Efavirenz/emtricitabine/tenofovir | Atripla™ | Combines Sustiva, Emtriva and Viread | Bristol-Myers Squibb and Gilead |

**3. Protease inhibitors: Block the action of protease, an enzyme that cuts HIV protein chains into specific proteins needed to assemble a new copy of the virus. NOTE:** when you see "/r" after the name of a protease inhibitor, that means it is boosted with a small dose of ritonavir. For example, SQV/r means saquinavir boosted with ritonavir.

| | | | | |
|---|---|---|---|---|
| 1995 | Saquinavir | Invirase® | SQV | Roche |
| 1996 | Ritonavir | Norvir® | RTV | Abbott |
| 1996 | Indinavir | Crixivan® | IDV | Merck |
| 1997 | Nelfinavir | Viracept® | NFV | Pfizer/Agouron |
| 1997 | Saquinavir | Fortovase® Manufacture discontinued in 2006; Roche | | |
| 1999 | Amprenavir | Agenerase® | APV; 141W94 | GlaxoSmithKline |
| 2000 | Lopinavir | Kaletra® | LPV, ABT-378/r | Abbott |
| 2003 | Atazanavir | Reyataz™ | ATV, BMS-232632 | Bristol-Myers Squibb |
| 2003 | Fosamprenavir | Lexiva™ | FPV, GW433908. 908 | GlaxoSmithKline |
| 2005 | Tipranavir | Aptivus™ | PNU140690 | Boehringer Ingelheim |
| 2006 | Darunavir | Prezista™ | TMC114 | Tibotec |
| Other PIs in human trials: GW640385 by GlaxoSmithKline, and RO033-4649 by Roche. | | | | |

**4. Integrase inhibitors: Block the action of integrase, an enzyme that inserts the viral DNA into the infected cell's DNA strands.** No integrase inhibitors have been approved yet, and none are currently in human trials.

**5. Attachment and Fusion inhibitors: Prevent HIV from attaching to a cell.**

| | | | | |
|---|---|---|---|---|
| 2003 | Enfuvirtide | Fuzeon™ | T-20 | Trimeris/Roche |
| Other fusion and attachment inhibitors in human trials include: AMD070 by AnorMED, BMS-806 by Bristol-Myers Squibb, FP21399 by Fuji Pharmaceuticals, GW873140 by GlaxoSmithKline, INCB9471 by Incyte, PRO 542 by Progenics Pharmaceuticals, Inc. (Phase I/II trials), SCH-C and Vicriviroc (SCH-D) by Schering, TAK-220 by Takeda, TNX-355 by Tanox, and Maraviroc (UK-427-857) by Pfizer. | | | | |

**6. Antisense drugs: These are a "mirror image" of part of the HIV genetic code that locks onto the virus to prevent it from functioning.** One antisense drug, HGTV43 by Enzo Therapeutics, is in Phase I trials.

**7. Immune Modulators: Use the body's chemical messengers to stimulate the immune response.** Over a dozen immune modulators are being studied in humans. See Fact Sheet 480 for more information.

*Year of approval in the USA.

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