

Fund Manager Report
Product Details¹

Fund Assets	\$2,351,227,446.37
Fund Inception Date	03/04/2000
Number of Issuers	114
Bloomberg	TEMDAI LX
ISIN	LU0109394709
Base Currency	USD
Investment Style	Sector
Benchmark	NASDAQ Biotechnology Index
Morningstar Category™	Sector Equity Biotechnology

Asset Allocation^a

Percent of Total	%
Equity	98.25
Cash & Cash Equivalents	1.75
Fixed Income	0.00

Overall Morningstar Rating™^b

Fund Description

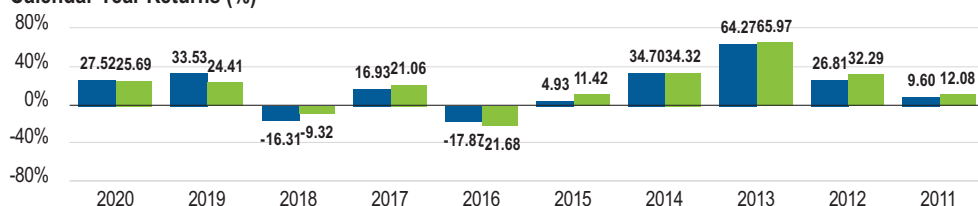
The fund aims to achieve capital appreciation by investing principally in equity securities of biotechnology companies and discovery research firms located mainly in the US.

Performance Data
Discrete Annual Performance (%) as at 30/09/2021

	9/20-9/21	9/19-9/20	9/18-9/19	9/17-9/18	9/16-9/17
A (acc) USD	0.17	46.47	-18.08	1.28	16.23
NASDAQ Biotechnology Index USD	19.46	36.10	-18.45	9.80	15.39

Performance Net of Management Fees as at 30/09/2021 (Dividends Reinvested) (%)^{c,d}

	1 Mth	3 Mths	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception (03/04/2000)
A (acc) USD	-4.68	-5.06	-9.31	0.17	6.32	7.19	15.19	6.77
NASDAQ Biotechnology Index	-4.91	-1.22	6.85	19.46	9.85	10.93	18.11	7.54

Calendar Year Returns (%)


- A (acc) USD
- NASDAQ Biotechnology Index

Past performance is not an indicator or a guarantee of future performance.

Portfolio Manager Insight
Performance Review
QUARTERLY KEY PERFORMANCE DRIVERS

	Stocks	Industries
HELPED	Trillium Therapeutics (Off-Benchmark Exposure)	Life Sciences Tools and Services (Underweight)
	Ascendis Pharma (Overweight)	Health Care Services (Underweight)
	Adagio Therapeutics (Off-Benchmark Exposure)	—
HURT	Moderna (Significant Underweight)	Biotechnology (Stock Selection, Underweight)
	Heron Therapeutics (Off-Benchmark Exposure)	Pharmaceuticals (Stock Selection, Overweight)
	Jazz Pharmaceuticals (Overweight)	—

- While the majority of the fund's largest biotechnology industry detractors suffered double-digit percentage declines over the July–September span, some the most detrimental impacts on our results versus the index stemmed from the portfolio's performance differential in BioNTech and a deep underweighting in Moderna (at 3.4% of total net assets versus 11.1% of the index's overall composition). We purchased BioNTech shares just ahead of a late summer selloff, resulting in a significant loss, while the stock rose nearly 22% on the index for the full quarter. Meanwhile, Moderna was our top absolute contributor despite the relative weakness. Moderna continued to execute on its COVID-19 vaccine portfolio and was contending with resurgent

1. All holdings are subject to change. Holdings of the same issuers have been combined.

demand given the highly contagious Delta variant, and the stock, after quadrupling this year (and by roughly tenfold since the start of the pandemic), appeared to be pricing in a considerable amount of recurring revenue and pipeline progress. The shares moved higher as second-quarter earnings came in well above forecast.

- Heron Therapeutics' second-quarter financial results undershot the company's guidance as a modified version of newly approved non-opioid painkiller ZYNRELEF was experiencing clinical trial headwinds with the company seeking to expand beyond ZYNRELEF's currently narrow FDA-approved label. The company believes it can secure a broader label with additional studies, but the narrow label will likely impact ZYNRELEF's growth trajectory. Meanwhile, Jazz Pharmaceuticals shed about a quarter of its equity value, but we still believe it holds strong potential. The company's latest quarterly earnings results came up short on sales of some key products, resulting in a steeper-than-expected overall loss for the April-June period. However, Jazz's newest drugs are contributing to the bottom line while the firm works to unlock more growth opportunities. Jazz has continued to make headway with its long-standing leadership in the sleep medicine market, as well as a wave of new additions to its product line-up including the integration of its recent acquisition of cannabinoid-focused biotech GW Pharma (which helped diversify Jazz's cannabis-derived medicine pipeline into a range of increasingly popular seizure- and spasticity-related therapies).
- Biotechnology industry results were buoyed by rallies in several overweight or off-benchmark holdings, some of which were due to clinical trial successes, better-than-expected quarterly financial results, and/or synergistic acquisitions. In particular, Pfizer (not a fund holding) announced an offer to acquire top contributor Trillium Therapeutics—a developmental-stage, blood cancer-focused biotech company—for US\$18.50 per share or US\$2.26 billion total, and a 204% premium over Trillium's closing price ahead of the deal. We think it is a good fit for Pfizer, as they get a CD47-focused pipeline (CD47 is an immunoglobulin that is overexpressed on the surface of many types of cancer cells) that is potentially as efficacious as—if not better than—Gilead's magrolimab (Gilead is also owned by the fund), and for less than half of what Gilead paid for Trillium rival Forty Seven in 2020. In some ways the acquisition was not that surprising, given that Pfizer made a US\$25 million equity investment in Trillium last year. Trillium's anti-CD47 antibodies are the only ones to have shown monotherapy activity in lymphoma, whereas magrolimab and others are used in combination with other antibodies. Importantly, Trillium's treatments are also better tolerated than magrolimab and other competitors since they do not cause anaemia.

ONE-MONTH KEY PERFORMANCE DRIVERS

	Stocks	Industries
HELPED	Arcus Biosciences (Off-Benchmark Exposure)	Life Sciences Tools and Services (Underweight, Stock Selection)
	Acceleron Pharma (Overweight)	Pharmaceuticals (Overweight)
	BioNTech (Underweight)	—
HURT	Moderna (Significant Underweight)	Biotechnology (Stock Selection)
	Forte Biosciences (Off-Benchmark Exposure)	—
	Apellis Pharmaceuticals (Overweight)	—

- Biotechnology holdings were slightly behind the index in September, yet we held many individual positions that bucked the overall downtrend and rallied solidly. In particular, cancer drug developer Arcus Biosciences has been making progress with one of the most closely-watched clinical trials of 2021—ARC-7, which is the company's Phase 2 trial for domnavalimab (anti-TIGIT antibody) for lung cancer, is on track to report results in the first half of 2022. There has been growing interest in TIGIT as a target for cancer, especially after Arcus's competitor Roche demonstrated additive efficacy when combined with an anti-PD-L1 antibody. Arcus is testing domnavalimab in combination with their own anti PD-1 antibody zimberelimab, as well as in a triple combination of the two plus etrumadenant (A2A/2BR antagonist), and while the company has not reported initial efficacy results yet, Arcus management has noted that the triplet appears to be highly efficacious thus far.
- Middle-capitalisation biotech Acceleron's equity value surged by nearly a third during the month, ahead of Merck announcing an agreement to purchase Acceleron for \$180/share or ~\$11.5B. Acceleron focuses on therapeutics to treat serious and rare diseases. Its products include Reblozyl, which is already approved for patients with chronic anaemia associated with beta-thalassemia and myelodysplastic syndromes, and sotatercept, which is in late-stage development for pulmonary arterial hypertension.
- Amongst the major detractors, both Forte Biosciences and Apellis Pharmaceuticals announced negative clinical trial results. Forte shed most of its equity value after reporting top-line data from its Phase 2 study evaluating FB-401—the only candidate in its product pipeline, which is intended to treat atopic dermatitis—that showed the drug did not meet the primary endpoint of the study. Apellis, which focuses on rare diseases, sold off as investors reacted to conflicting clinical trial data for the company's experimental blindness prevention drug. Apellis earned FDA approval for its first drug, Empaveli, in May, so there is still a lot riding on pegcetacoplan, the next potential new drug emerging from the company's pipeline. The drug is designed to treat geographic atrophy, an advanced and aggressive form of age-related macular degeneration, or AMD. Apellis still plans to submit a new drug application to the FDA for this drug in the first half of 2022.

Outlook & Strategy

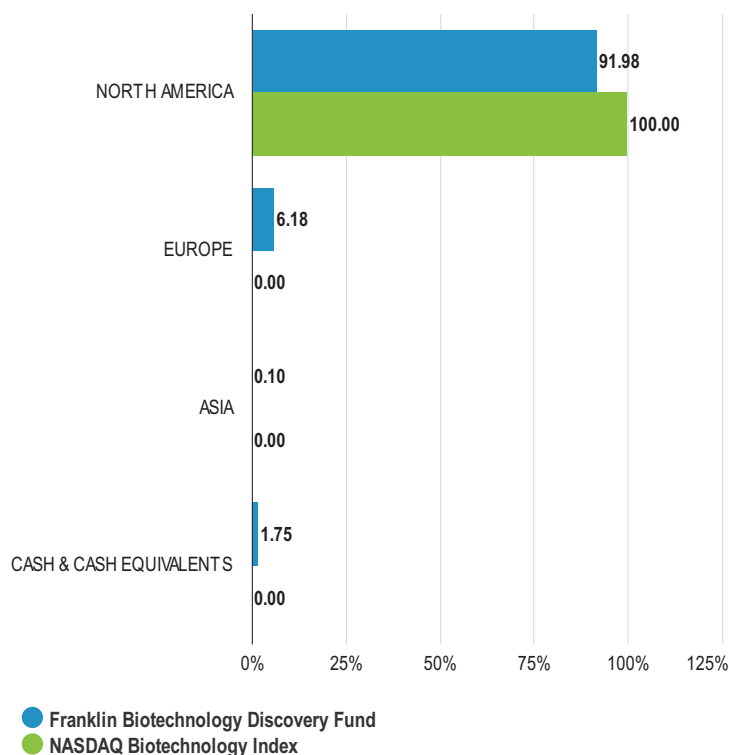
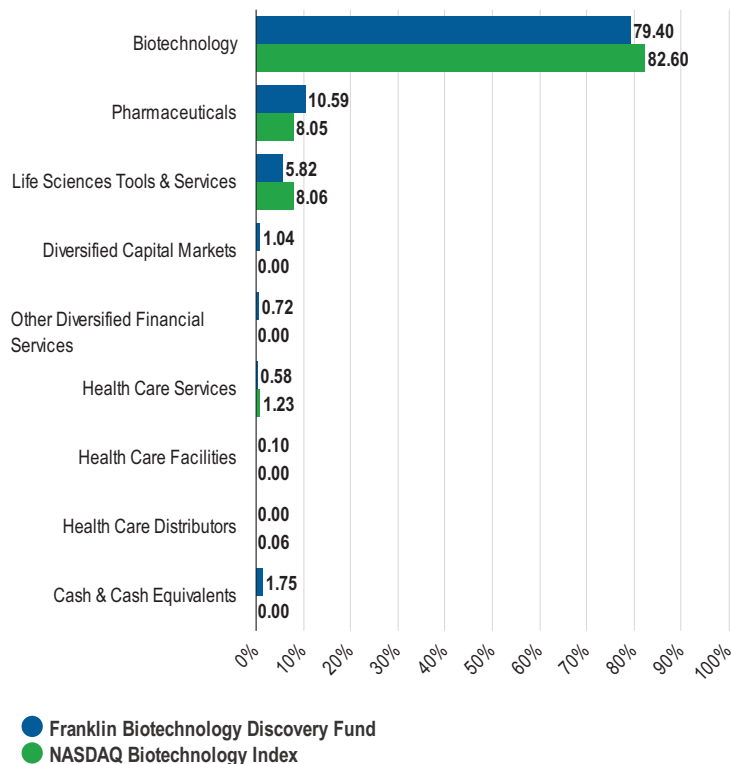
- The past several months have been challenging for biotechnology firms as the industry's overall equity market selloff from February through July represented a sharp reversal from record highs, though the losses were nearly recouped in August and September. As the pace of vaccinations has picked up worldwide, investors have increasingly turned their focus to reopening and an economic rebound, with many rotating out of biotech/pharma and into cyclicals, financials, energy and the COVID-19 recovery trade. Furthermore, a string of high-profile clinical trial failures and regulatory disappointments, as well as a resurgence in drug-pricing policy discussions, continue to weigh on the sector. That said, the recent surge in merger-and-acquisition (M&A) activity in the third quarter has helped improve sentiment somewhat.
- The recent approval by the US Food & Drug Administration (FDA) of Biogen's (held by the fund) Aduhelm—an amyloid beta-directed antibody indicated to treat Alzheimer's disease—has sparked mixed emotions amongst investors, but ultimately, we find the agency's decision to be a net positive for the sector. The FDA is signalling a strong willingness to accept a "mixed" data package for high unmet need indications that have been underserved by existing drug treatments. This flexibility appears justified for a disease like Alzheimer's, but time will tell if the FDA's controversial decision is vindicated. Concerns over pricing and access should abate over time and we see several potential avenues for Medicare to obtain the necessary means to pay for the drug. While a direct readthrough from the Aduhelm decision to other drug programmes is less clear, we believe several neurodegenerative disease areas stand to benefit, including Huntington's Disease, frontotemporal dementia, ALS, and genetic forms of Parkinson's disease.

- Heading into September, our strategy remained unchanged despite the somewhat erratic path of biotechnology equities over the past seven months. As always, we continue to concentrate our investments in biotech companies whose products are best-in-class, first-in-class or only-in-class, and that address diseases with significant unmet medical need delivering clinical value to patients, physicians and payors. Furthermore, we are mindful of valuation, as well as quality of management and financial position in the current environment.
- While the sector has remained relatively resilient throughout the pandemic, we expect a fuller recovery in the coming months as operations that were disrupted by the pandemic continue to return to normal. Some commercial-stage companies struggled with new drug launches during the pandemic, while earlier-stage companies saw some disruption in starting new clinical trials or maintaining the pace of enrolment in existing trials. As vaccinations have enabled a gradual reopening in many parts of the world, clinical development and commercial sales have started to recover. Lastly, most of the developmental-stage companies we invest in rely on capital markets to finance their business models. Fortunately, after a short COVID-19-induced pause, the biotech financing window has been wide open thus far in 2021.
- While the recent discussion on drug pricing reform has renewed investors' concerns this summer, we continue to believe that it will be very difficult to implement any legislation that dramatically alters the current economics of the biopharmaceutical business model. The combination of the new US presidential administration under Joe Biden and the Democrat-controlled US Congress could increase the chance of passing Democrat-sponsored prescription drug price legislation over the next few years. However, drug pricing was not a major policy focus for Biden's campaign or the early phase of his presidency, and drug pricing discussions will likely continue to take a back seat to the pandemic response, in our view.
- M&A activity remains a key driver for the sector. While M&A activity was minimal in the first half of the year, several acquisitions were announced in the third quarter, including Pfizer for Trillium, Sanofi for Kadmon and Translate Bio, and Merck for Acceleron. We are hopeful that this consolidation can continue given the robust stream of innovation flowing from numerous small- and mid-capitalisation biotechnology companies, coupled with weakening product pipelines and strong financial positions at the larger biopharmaceutical companies.
- Over the longer term, we are excited about the tremendous amount of innovation taking place. We are particularly enthusiastic about the recent advancements made in the areas of gene therapy and gene editing, immuno-oncology and precision oncology. We are encouraged by novel mechanisms to address diseases with high unmet medical need, including Alzheimer's disease, other neurodegenerative disorders, and autoimmune diseases. We also see opportunities at the other end of the "prevalence spectrum" in addressing rare diseases. We are further encouraged by what we are seeing in background processes, as many novel discovery tools are being used behind the scenes to enable faster drug discovery and development.

Portfolio Characteristics^o

	Portfolio	NASDAQ Biotechnology Index
Market Capitalisation (Millions in USD)	35,978	49,707
Price to Earnings Growth Ratio	1.35x	1.39x
3-Year Sales Growth	47.32%	34.26%
Estimated 3-5 Yr EPS Growth	-0.94%	3.66%
Price to Earnings (12 Month Forward)	14.49x	13.56x

Portfolio Diversification

Geographic Weightings vs. NASDAQ Biotechnology Index^a
Percent of TotalSector Weightings vs. NASDAQ Biotechnology Index^a
Percent of TotalTop Ten Holdings^f

Percent of Total

Top Holdings	%
REGENERON PHARMACEUTICALS INC	5.63
AMGEN INC	4.79
GILEAD SCIENCES INC	4.65
ILLUMINA INC	4.33
MODERNA INC	4.32
HORIZON THERAPEUTICS PLC	4.15
MIRATI THERAPEUTICS INC	3.34
BIOGEN INC	3.12
VERTEX PHARMACEUTICALS INC	2.89
ASCENDIS PHARMA A/S	2.76

Performance Statistics

Risk Statistics²

	3 Yrs	5 Yrs	10 Yrs	Since Inception
Standard Deviation (%)				
Franklin Biotechnology Discovery Fund	24.55	22.04	22.68	23.78
NASDAQ Biotechnology Index	22.93	20.66	21.28	24.10
Tracking Error (%)	8.04	6.99	6.70	6.75
Information Ratio³	-0.44	-0.54	-0.44	-0.15
Beta	1.01	1.01	1.02	0.95
Sharpe Ratio				
Franklin Biotechnology Discovery Fund	0.22	0.28	0.64	0.24
NASDAQ Biotechnology Index	0.38	0.48	0.82	0.28

2. Beta, Information Ratio and Tracking Error information are measured against the NASDAQ Biotechnology Index.

3. Information Ratio is a way to evaluate a manager's ability to outperform a benchmark in relation to the risk that manager is assuming, with risk defined as deviation from the benchmark. This measure is calculated by dividing the portfolio's excess return (portfolio return less the benchmark return) by the tracking error (derived by taking the standard deviation of the monthly differences between the portfolio return and the benchmark return over time).

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Investment Team

Portfolio Manager	Years with Firm	Years Experience
Evan McCulloch, CFA	29	29
Wendy Lam, Ph. D.	5	9
Akiva Felt	3	14

What Are the Key Risks?

The value of shares in the Fund and income received from it can go down as well as up and investors may not get back the full amount invested. Performance may also be affected by currency fluctuations. Currency fluctuations may affect the value of overseas investments. The Fund invests mainly in equity securities of biotechnology companies. Such securities have historically been subject to significant price movements that may occur suddenly due to market, sector or company-specific factors. As a result, the performance of the Fund can fluctuate significantly over relatively short time periods. Other significant risks include: equity risk, securities lending risk. For full details of all of the risks applicable to this Fund, please refer to the “Risk Considerations” section of the Fund in the current prospectus of Franklin Templeton Investment Funds.

Important Legal Information

This document does not constitute legal or tax advice nor is it investment advice or an offer for shares of Franklin Templeton Investment Funds (the "Fund"). Subscriptions to shares of the Fund can only be made on the basis of the current prospectus and, where available, the relevant Key Investor Information Document, accompanied by the latest available audited annual report and the latest semi-annual report accessible on our website www.ftidocuments.com or which can be obtained, free of charge, from Franklin Templeton International Services, S.à r.l. - 8A, rue Albert Borschette, L-1246 Luxembourg. The Fund's documents are available in English, Arabic, Czech, Danish, Dutch, Estonian, Finnish, French, German, Greek, Hungarian, Icelandic, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Slovak, Slovenian, Spanish and Swedish. In addition, a Summary of Investor Rights is available from franklintempleton.lu. The summary is available in English. The sub-funds of FTIF are notified for marketing in multiple EU Member States under the UCITS Directive. FTIF can terminate such notifications for any share class and/or sub-fund at any time by using the process contained in Article 93a of the UCITS Directive.

Past performance is not an indicator or a guarantee of future performance. The value of shares in the Fund and income received from it can go down as well as up, and investors may not get back the full amount invested. Investment in the Fund entails risks which are described in the Fund's prospectus and, where available, in the relevant Key Investor Information Document or any other relevant offering document. Special risks may be associated with a Fund's investment in certain types of securities, asset classes, sectors, markets, currencies or countries and in the Fund's possible use of derivatives. References to particular industries, sectors or companies are for general information and are not necessarily indicative of a fund's holdings at any one time. Currency fluctuations may affect the value of overseas investments. When investing in a fund denominated in a foreign currency, your performance may also be affected by currency fluctuations. Where a Fund invests in emerging markets, this investment can be more risky than an investment in developed markets. No shares of the Fund may be directly or indirectly offered or sold to residents of the United States of America.

The information provided is not a complete analysis of every material fact regarding any country, market, industry, security or fund. Because market and economic conditions are subject to change, comments, opinions and analyses are rendered as of the date of this material and may change without notice. A portfolio manager's assessment of a particular security, investment or strategy is not intended as individual investment advice or a recommendation or solicitation to buy, sell or hold any security or to adopt any investment strategy; it is intended only to provide insight into the fund's portfolio selection process. Holdings are subject to change.

In addition, it should not be assumed that any securities mentioned were or will prove to be profitable. Stocks mentioned in this report are not a solicitation to purchase those stocks, and are examples of some stocks which performed well. Not all stocks in the portfolio performed as well. For the most current information on the fund, please contact your Franklin Templeton marketing representative.

Performance figures are not based on audited financial statements and assume reinvestment of interest and dividends. When comparing the performance of Franklin Templeton Investment Funds (the "Fund") with a benchmark index, it is important to note that the securities in which the Fund invests may be substantially different than those represented by the benchmark index. Furthermore, an investment in Franklin Templeton Investment Funds represents an investment in a managed investment company in which certain charges and expenses, including management fees, are applicable. These charges and expenses are not applicable to indices. Lastly, please note that indices are unmanaged and are not available for direct investment. Certain data and other information shown have been supplied by outside sources. While we consider that information to be reliable, we give no assurance that such data and information is accurate or complete.

References to indexes are made for comparative purposes only and are provided to represent the investment environment existing during the time periods shown. The indices include a greater number of securities than those held in the Fund. An index is unmanaged and one cannot invest directly in an index. The performance of the index does not include the deduction of expenses and does not represent the performance of any Franklin Templeton fund. **Past performance is not an indicator or a guarantee of future performance.**

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a. Percentage may not equal 100% due to rounding. All holdings are subject to change.

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c. Source for all information is Franklin Templeton. Benchmark related data provided by FactSet. **Past performance is not an indicator or a guarantee of future performance.** Periods greater than one year are shown as average annual total returns. Fund performance data include reinvested dividends, and is net of management fees. Sales charges, other commissions, taxes and other relevant costs to be paid by the investor are not included. The fund offers other share classes subject to different fees and expenses, which will affect their performance. Please see the prospectus for details.

d. When performance for either the portfolio or its benchmark has been converted, different foreign exchange closing rates may be used between the portfolio and its benchmark.

e. The portfolio characteristics listed are based on the fund's underlying holdings, and do not necessarily reflect the fund's characteristics. Due to data limitations all equity holdings are assumed to be the primary equity issue (usually the ordinary or common shares) of each security's issuing company. This methodology may cause small differences between the portfolio's reported characteristics and the portfolio's actual characteristics. In practice, Franklin Templeton's portfolio managers invest in the class or type of security which they believe is most appropriate at the time of purchase. The market capitalisation figures for both the portfolio and the benchmark are at the security level, not aggregated up to the main issuer. Source: FactSet, Refinitiv. There can be no assurance that the Estimated 3-5 Year EPS Growth figure, based on Institutional Brokers Estimate System (IBES) consensus estimates, will be realised. All holdings are subject to change.

f. Holdings of the same issuers have been combined. Top ten holdings information is historical and may not reflect current or future portfolio characteristics. All holdings are subject to change. The information provided is not a recommendation to purchase, sell, or hold any particular security. The securities identified do not represent the fund's entire holdings and in the aggregate may represent only a small percentage of such holdings. There is no assurance that securities purchased will remain in the fund, or that securities sold will not be repurchased. The portfolio manager reserves the right to withhold release of information with respect to holdings that would otherwise be included.



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